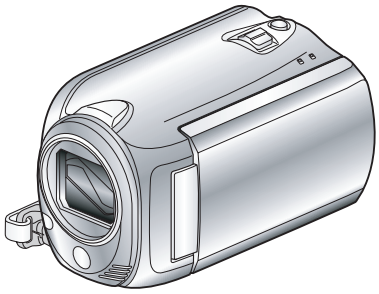
JVC

SERVICE MANUAL

CAMCORDER

GZ-HD520BEK, GZ-HD520BEU

SERIES
C1H1



GZ-HD520BEKM,GZ-HD520BEUM [C1H180]

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

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No.YF376<Rev.001>
2011/2

SECTION 1
PRECAUTIONS

1.1 SAFETY PRECAUTIONS

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold.However,in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

1.1.1 Precautions during Servicing

(1) Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product.When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

(2) Parts identified by the ⚠symbol and shaded ( ) parts are critical for safety.
Replace only with specified part numbers.

NOTE :
Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

(3) Fuse replacement caution notice.
Caution for continued protection against fire hazard.
Replace only with same type and rated fuse(s) as specified.

(4) Use specified internal wiring. Note especially:
- Wires covered with PVC tubing
- Double insulated wires
- High voltage leads

(5) Use specified insulating materials for hazardous live parts. Note especially:
- Insulation Tape
- PVC tubing
- Spacers
- Insulation sheets for transistors
- Barrier

(6) When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

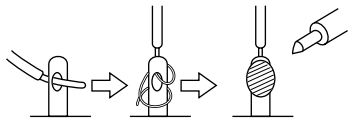


Fig.1-1-1

(7) Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

(8) Check that replaced wires do not contact sharp edged or pointed parts.

(9) When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

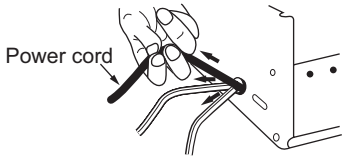


Fig.1-1-2

(10) Also check areas surrounding repaired locations.

(11) Products using cathode ray tubes (CRTs)
In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits.Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

(12) Crimp type wire connector
In such cases as when replacing the power transformer in sets where the connections between the power cord and power trans former primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.
- **Connector part number**: E03830-001
- **Required tool**: Connector crimping tool of the proper type which will not damage insulated parts.
- **Replacement procedure**
  a) Remove the old connector by cutting the wires at a point close to the connector.Important: Do not reuse a connector (discard it).

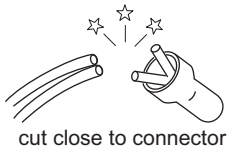


Fig.1-1-3

  b) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

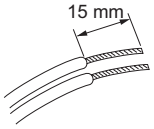


Fig.1-1-4

  c) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

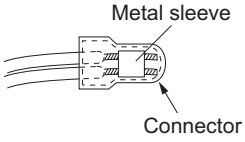


Fig.1-1-5

  d) As shown in Fig.1-1-6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

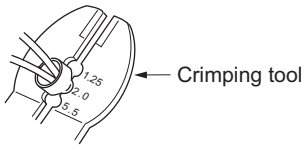


Fig.1-1-6

  e) Check the four points noted in Fig.1-1-7.

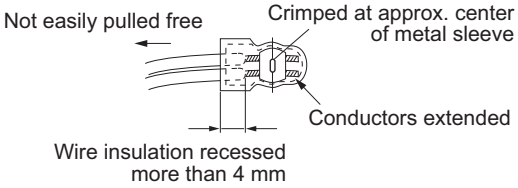


Fig.1-1-7

1.1.2 Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

(1) Insulation resistance test
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).See table 1 below.

(2) Dielectric strength test
Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See Fig.1-1-11 below.

(3) Clearance distance
When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See Fig.1-1-11 below.

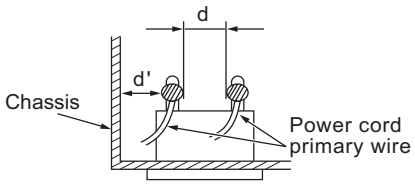


Fig.1-1-8

(4) Leakage current test
Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
Measuring Method: (Power ON) Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See Fig.1-1-9 and following Fig.1-1-12.

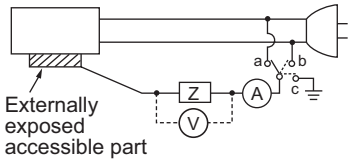
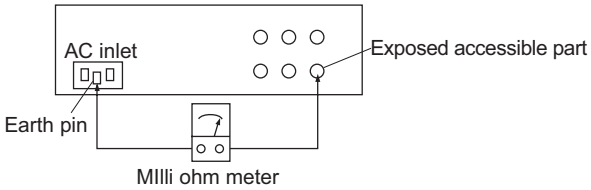


Fig.1-1-9

(5) Grounding (Class 1 model only)
Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).Measuring Method:
Connect milliohm meter between earth pin in AC inlet and exposed accessible parts. See Fig.1-1-10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

Fig.1-1-10

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 minute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	1 MΩ ≦R≦ 12 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R≧ 10 MΩ/500 V DC	AC 3 kV 1 minute (Class Ⅱ) AC 1.5 kV 1 minute (Class Ⅰ)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Fig.1-1-11

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	0.15 μF, 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Fig.1-1-12

NOTE:
These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 DIFFERENCE LIST

MODEL	GZ-HD520BEK	GZ-HD520BEU
AC ADAPTER	AP-V30M	AP-V30E
AC CORD	YES(BS TYPE)	NO

SECTION 3
DISASSEMBLY

3.1 Disassembly procedure

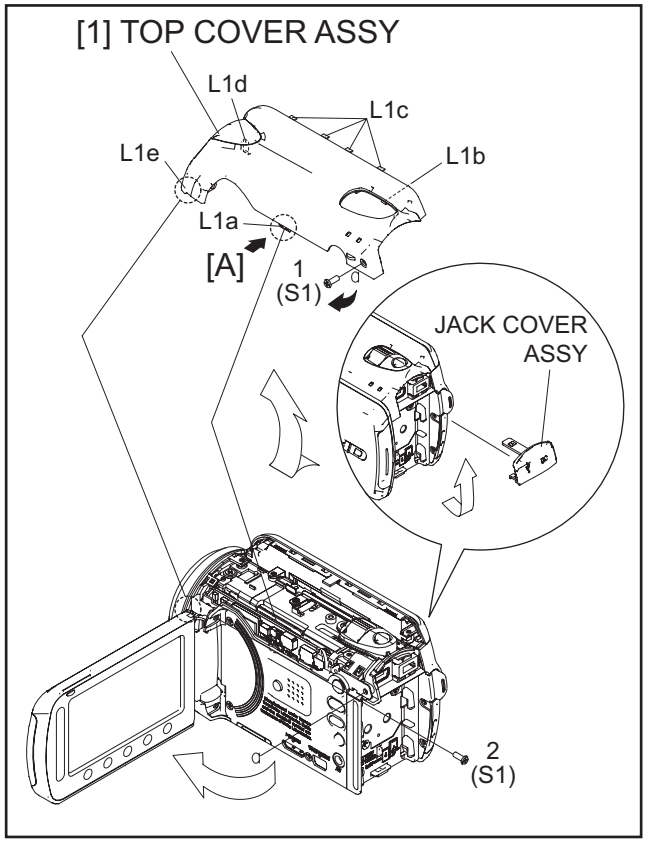


Fig.3-1-1

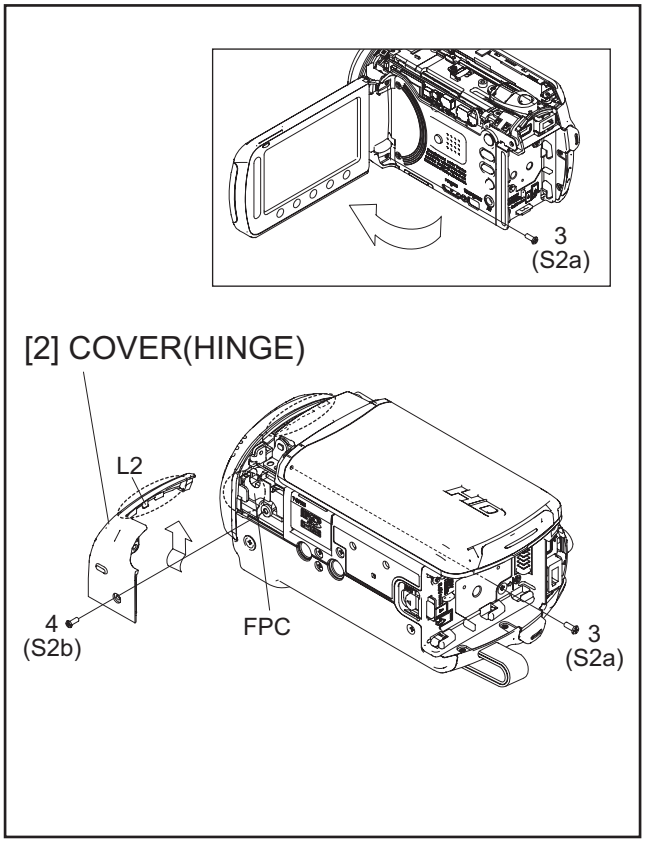


Fig.3-1-2

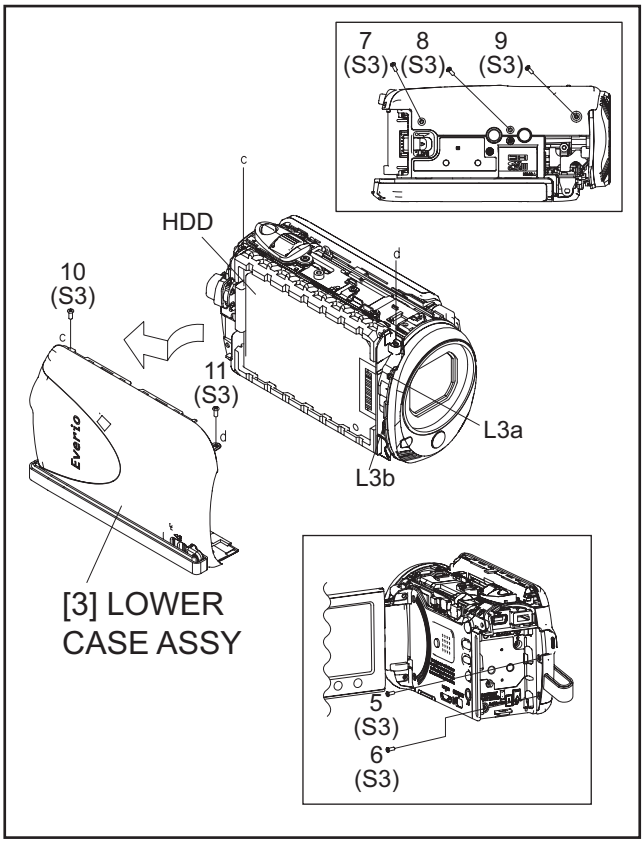


Fig.3-1-3

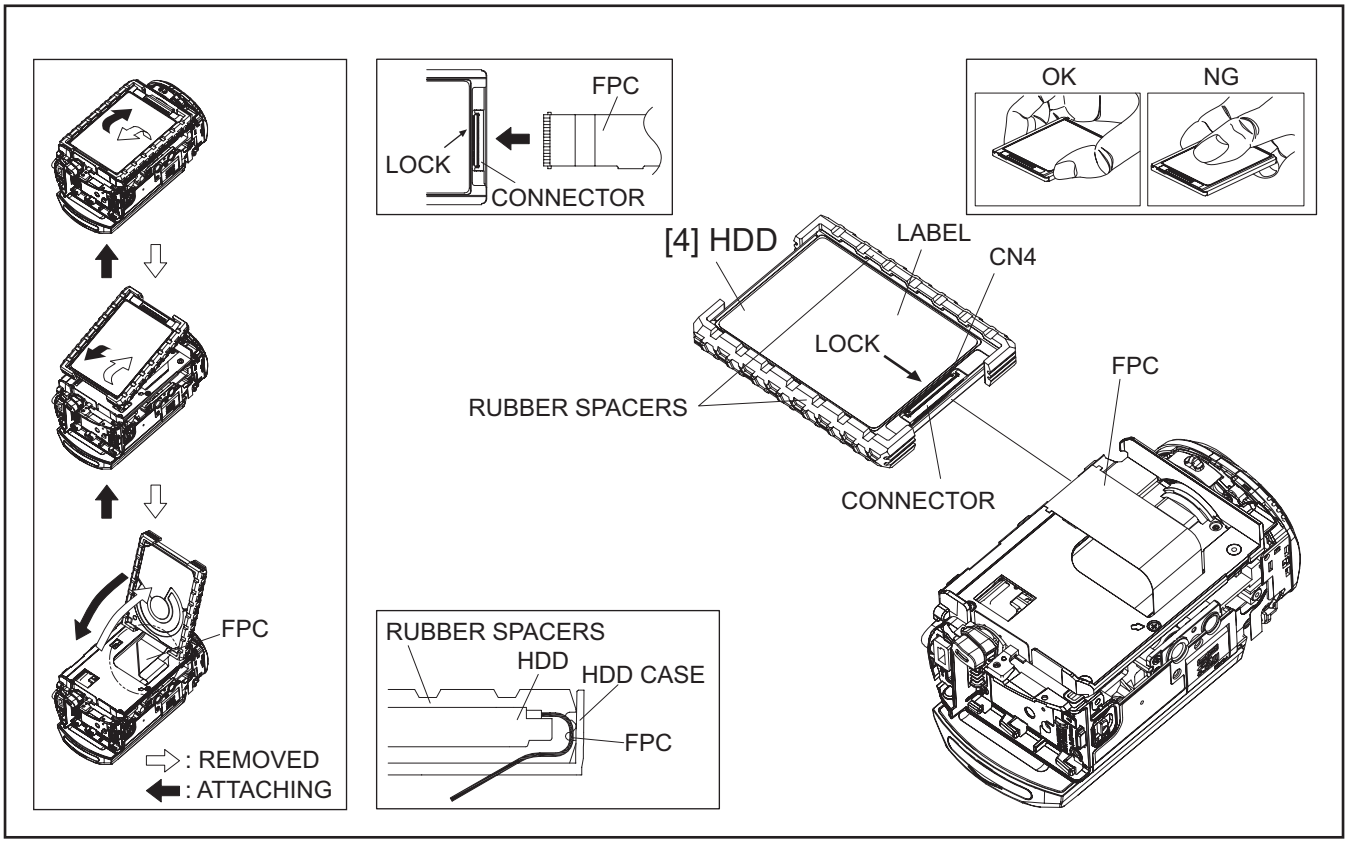


Fig.3-1-4

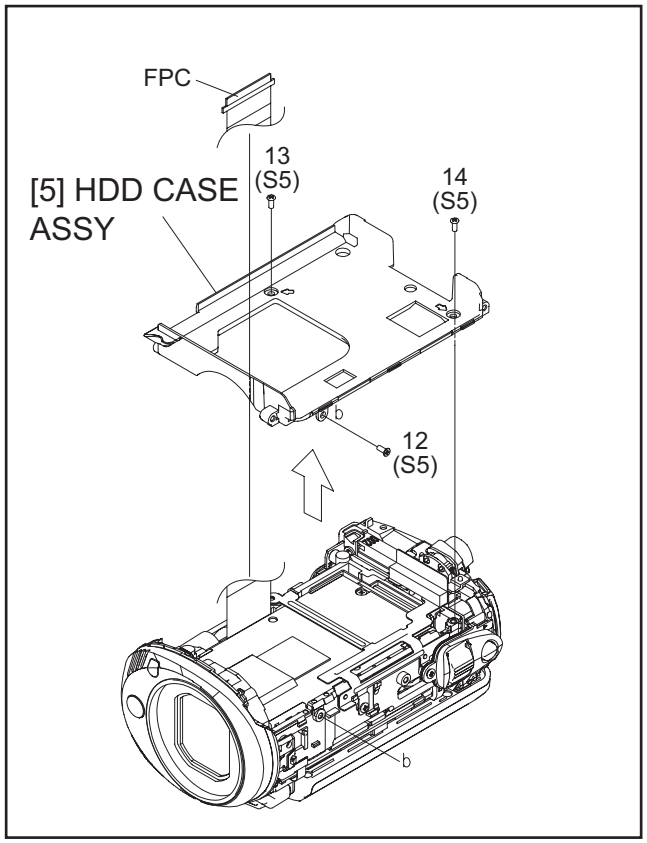


Fig.3-1-5

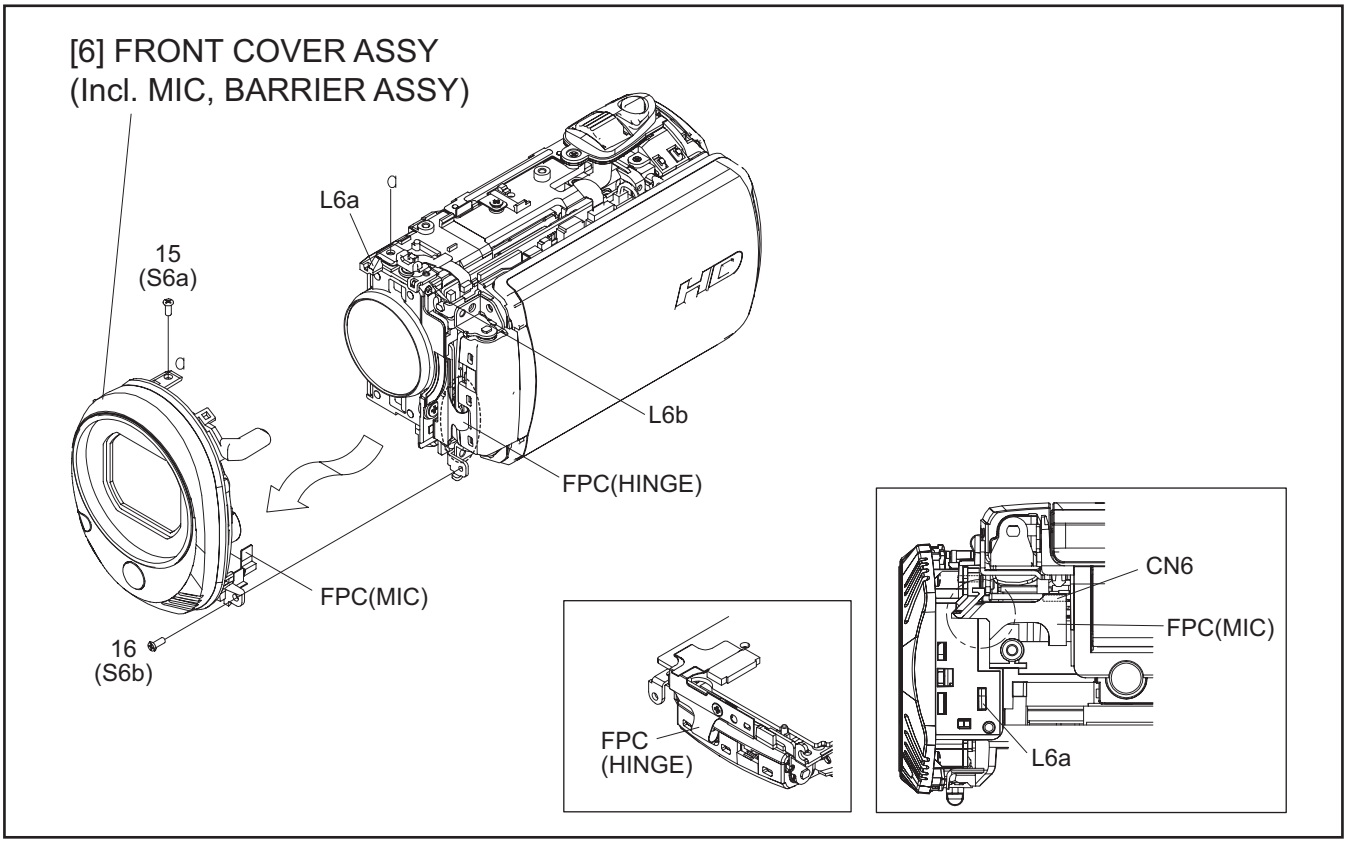


Fig.3-1-6

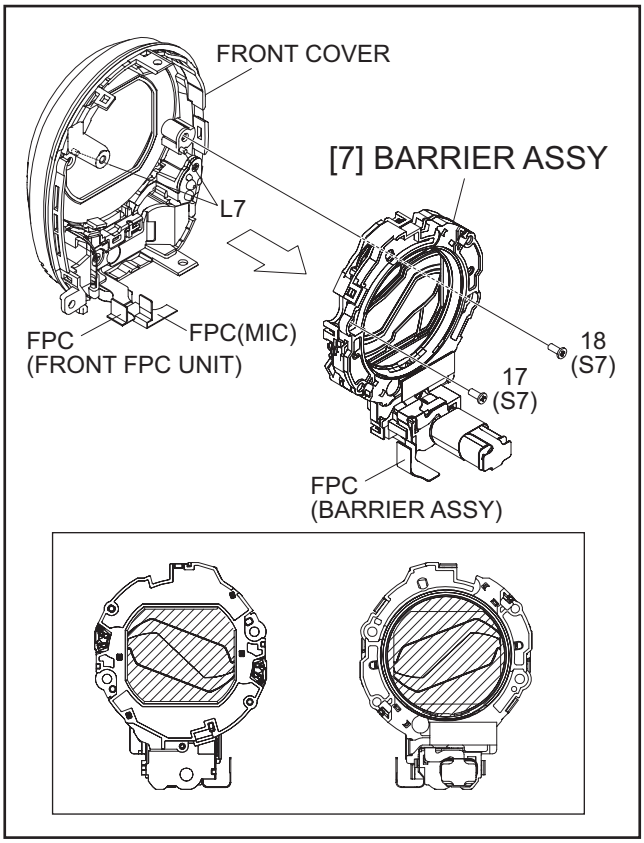


Fig.3-1-7

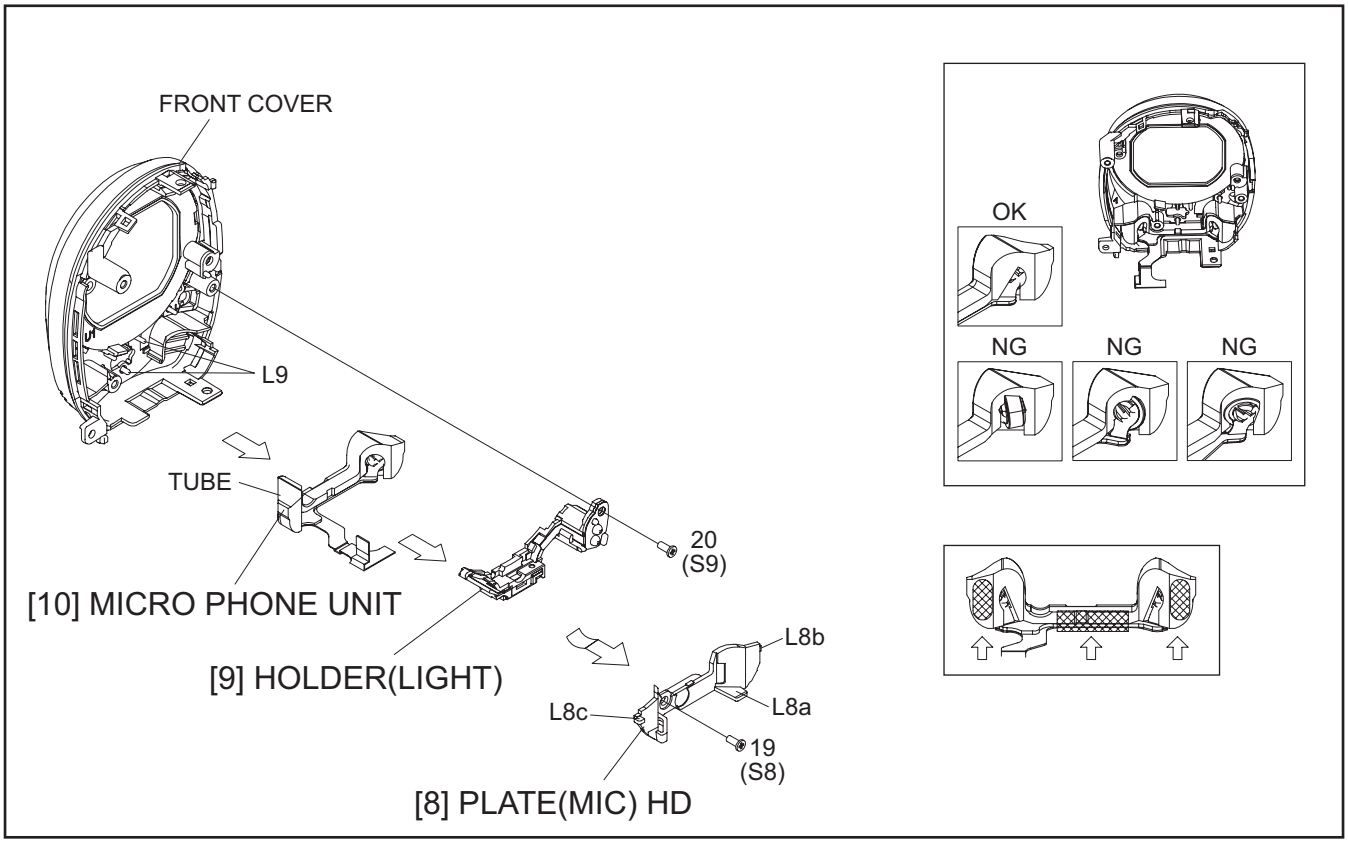


Fig.3-1-8

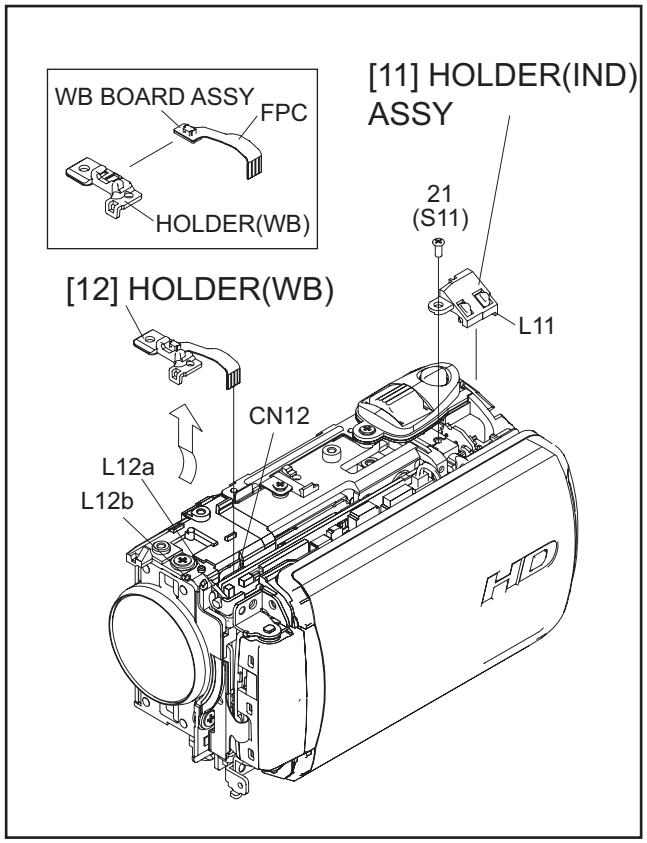


Fig.3-1-9

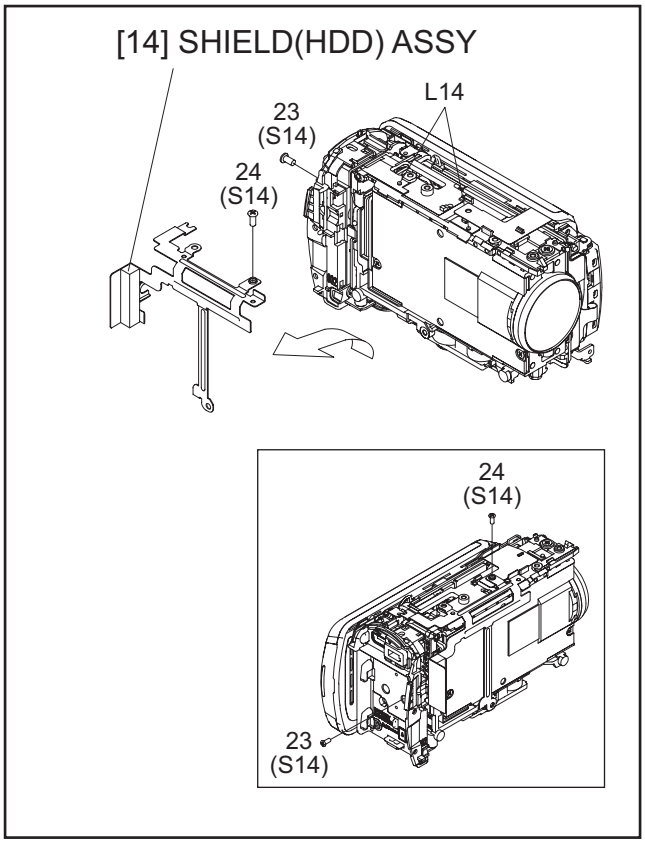


Fig.3-1-11

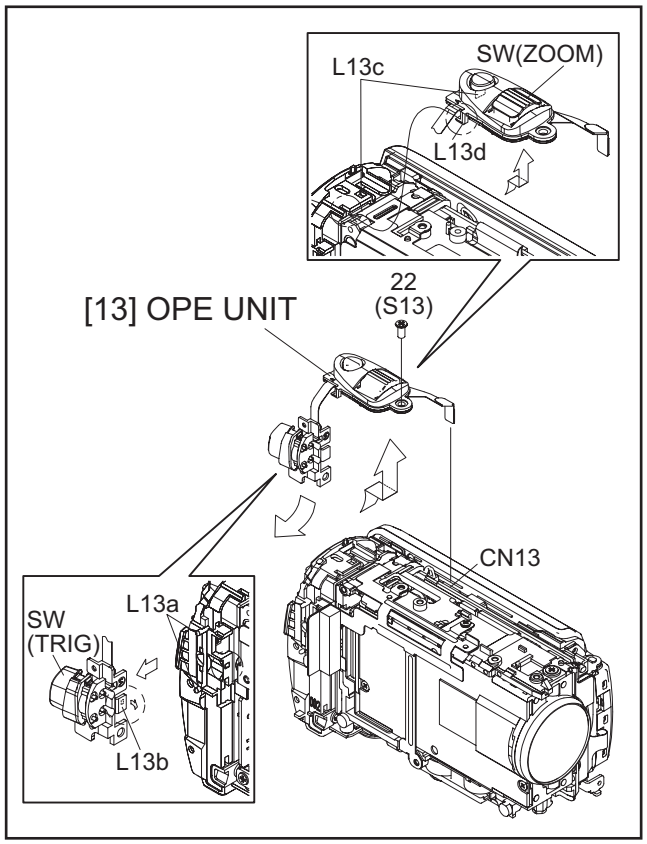


Fig.3-1-10

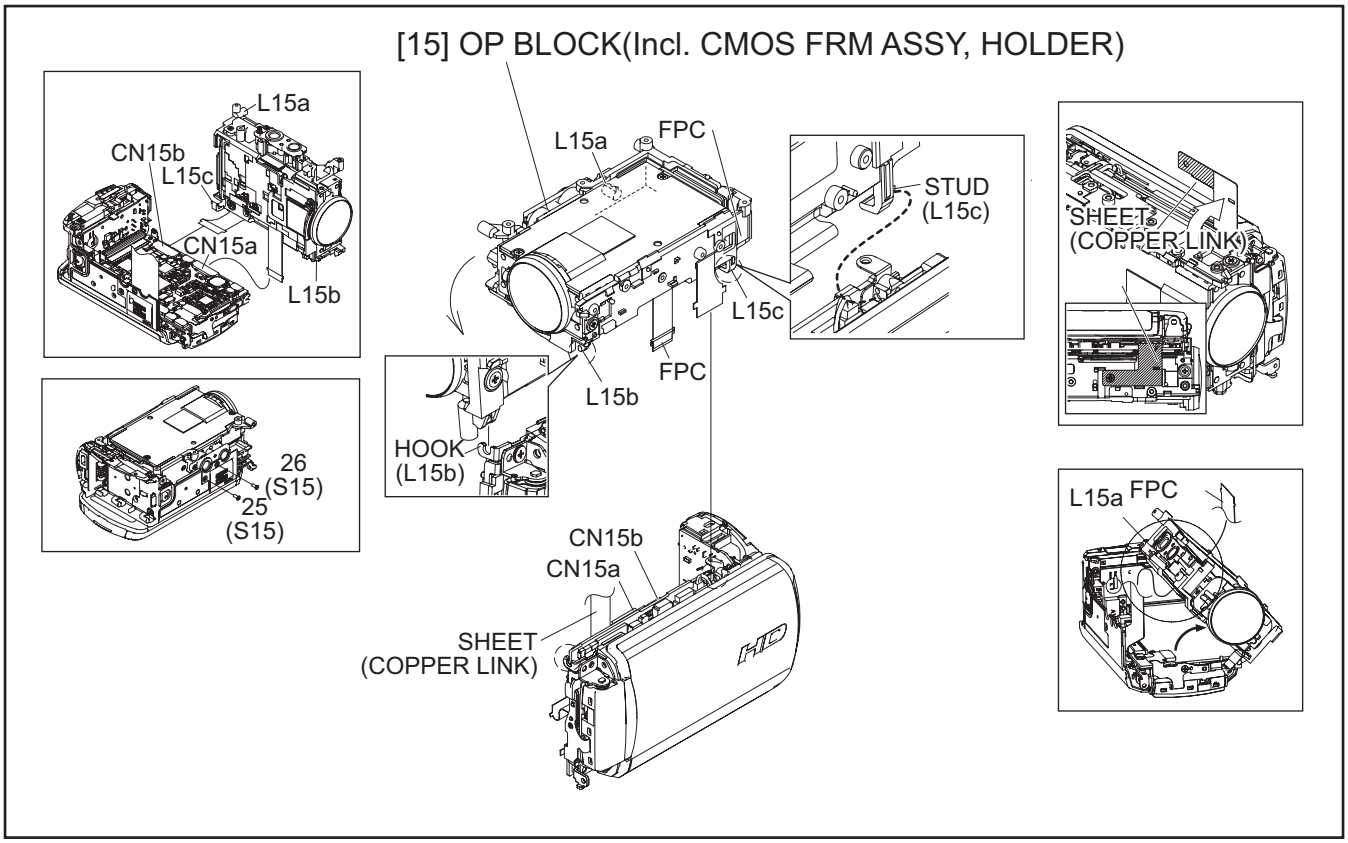
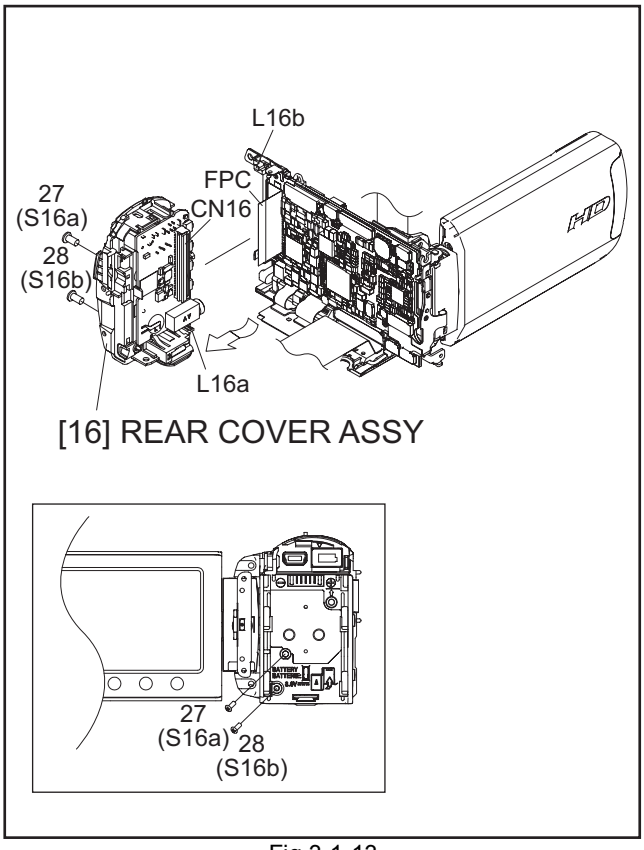


Fig.3-1-12



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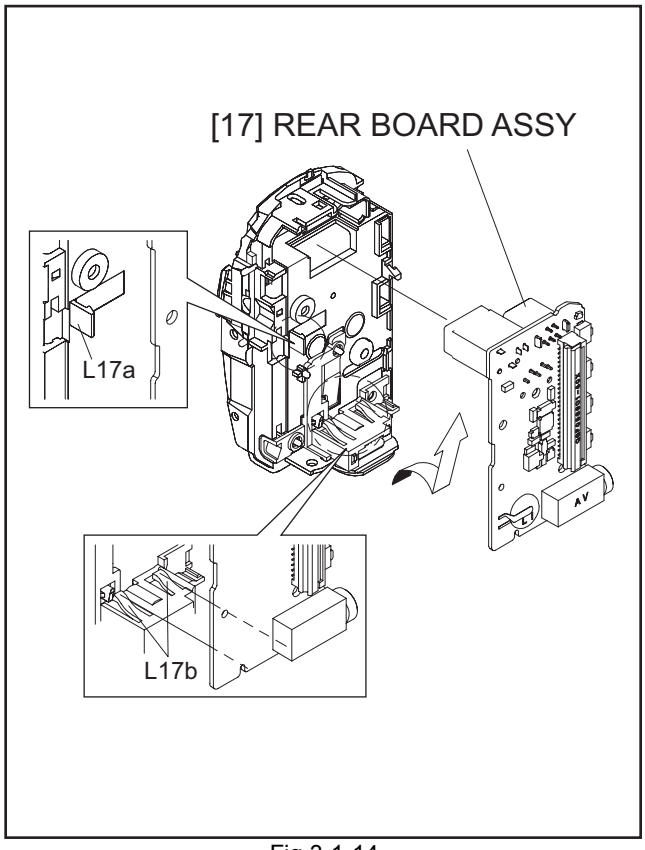

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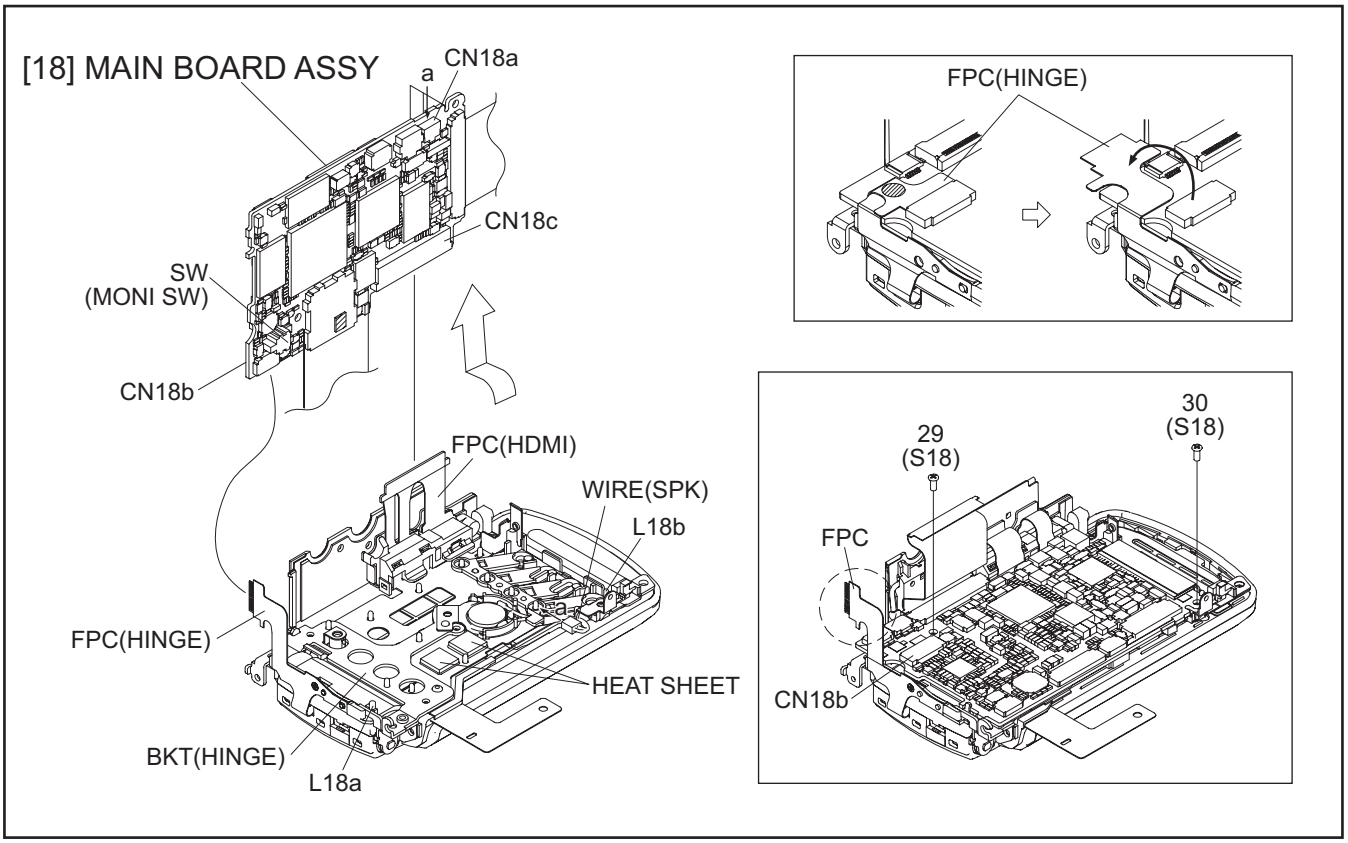

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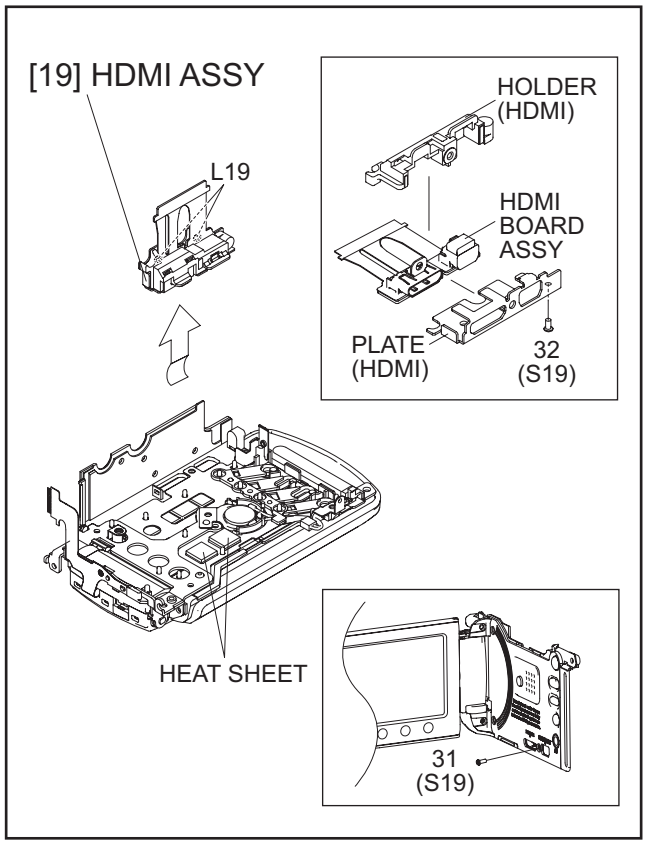

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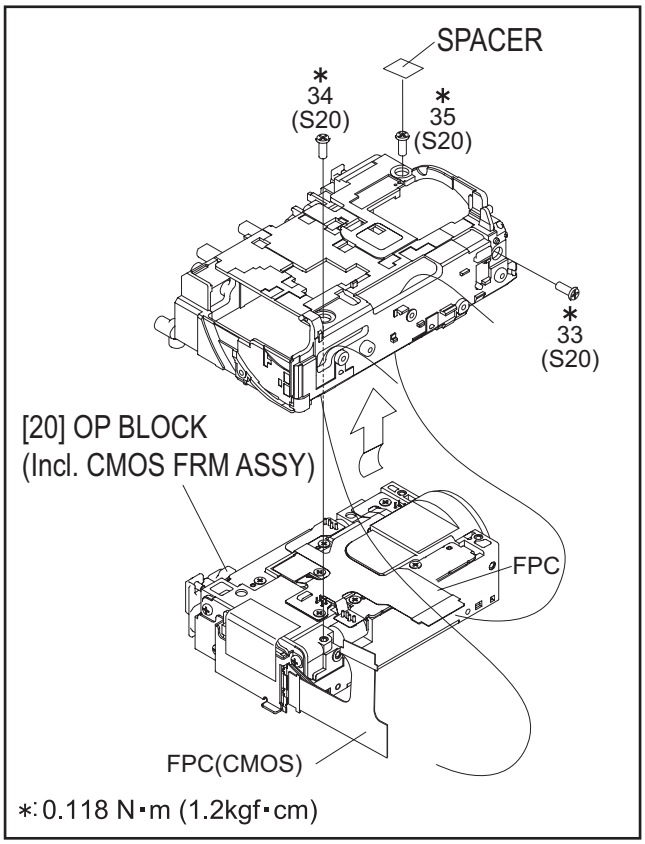

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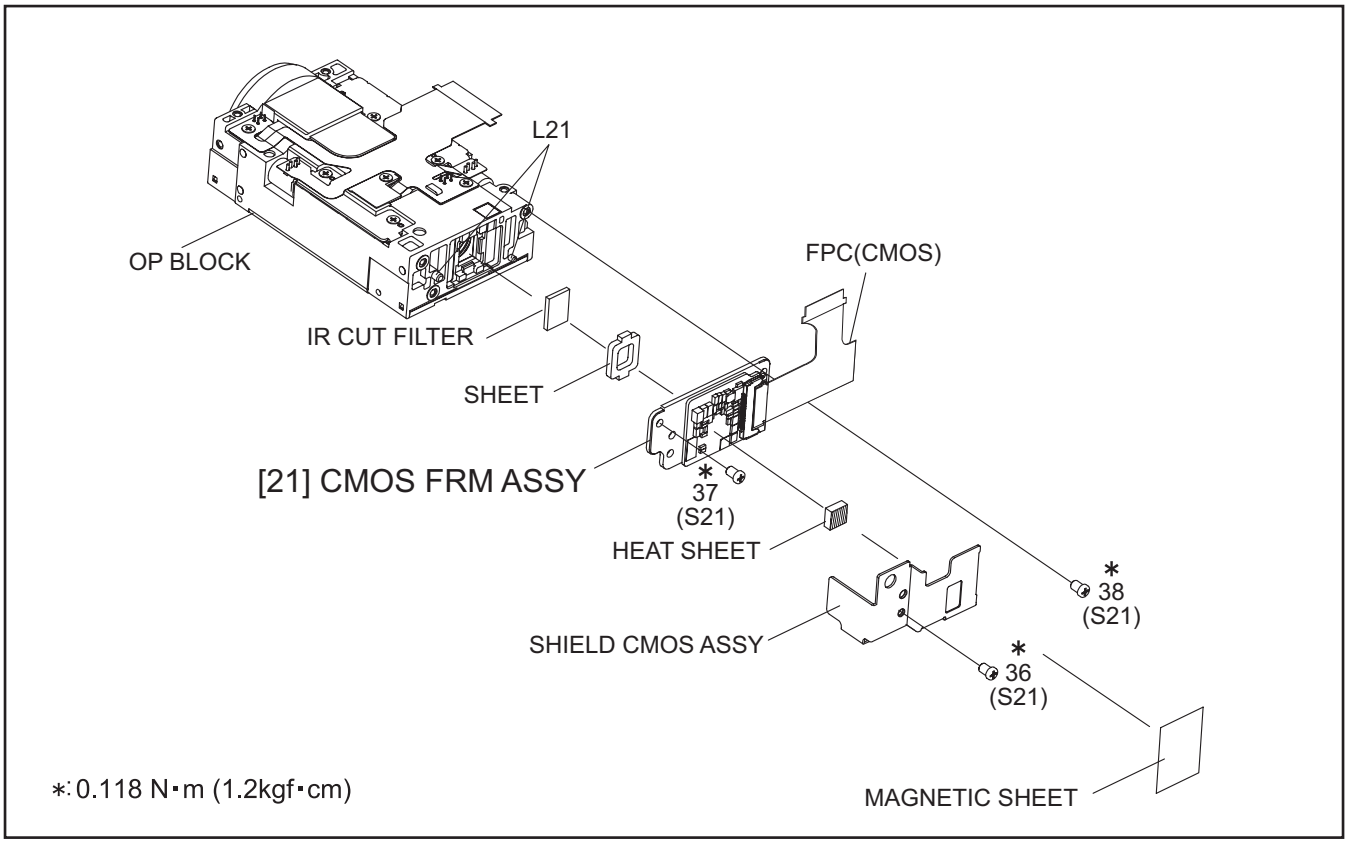

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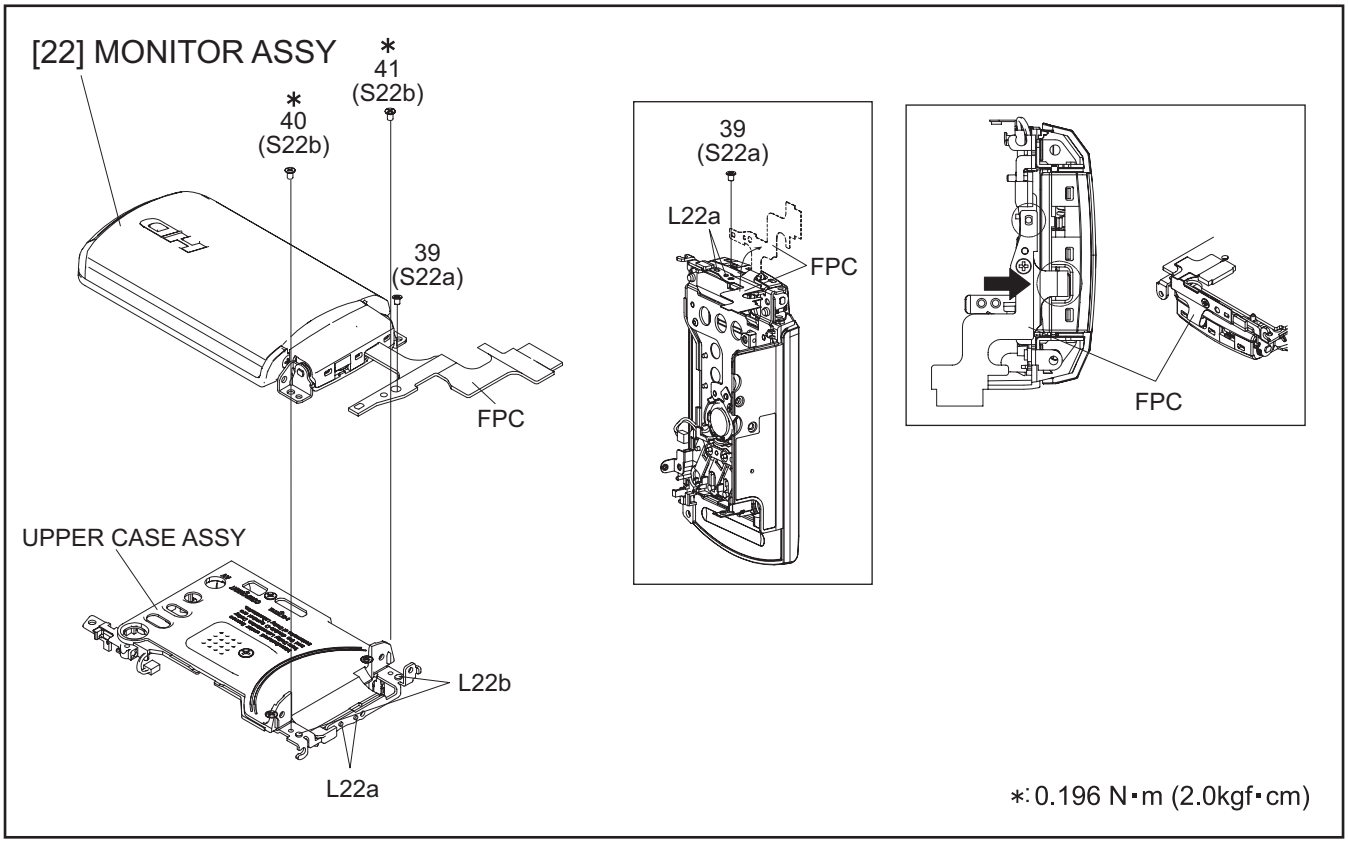

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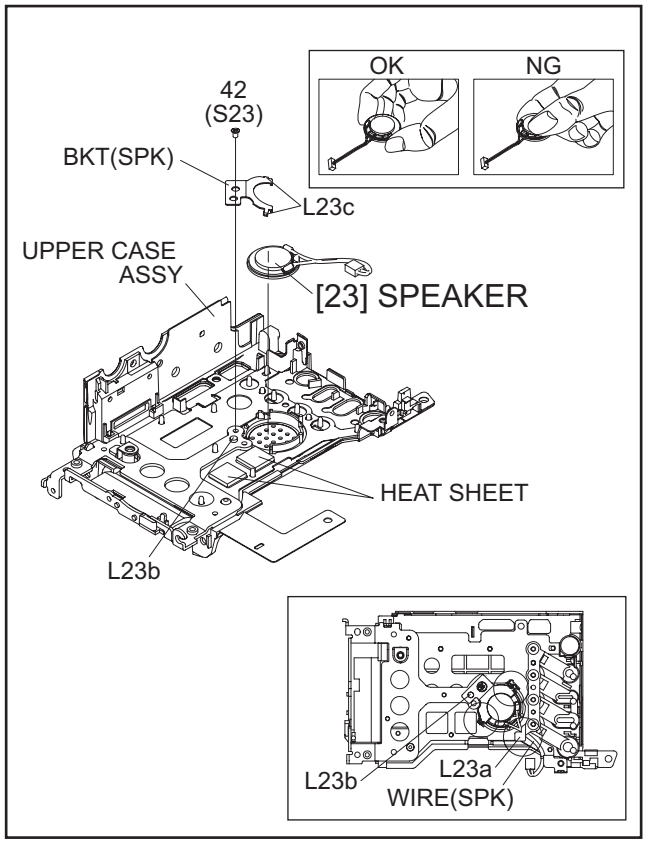

OK
NG
42
(S23)
BKT(SPK)
L23c
UPPER CASE
ASSY
[23] SPEAKER
HEAT SHEET
L23b
L23b
L23a
WIRE(SPK)

Fig.3-1-20

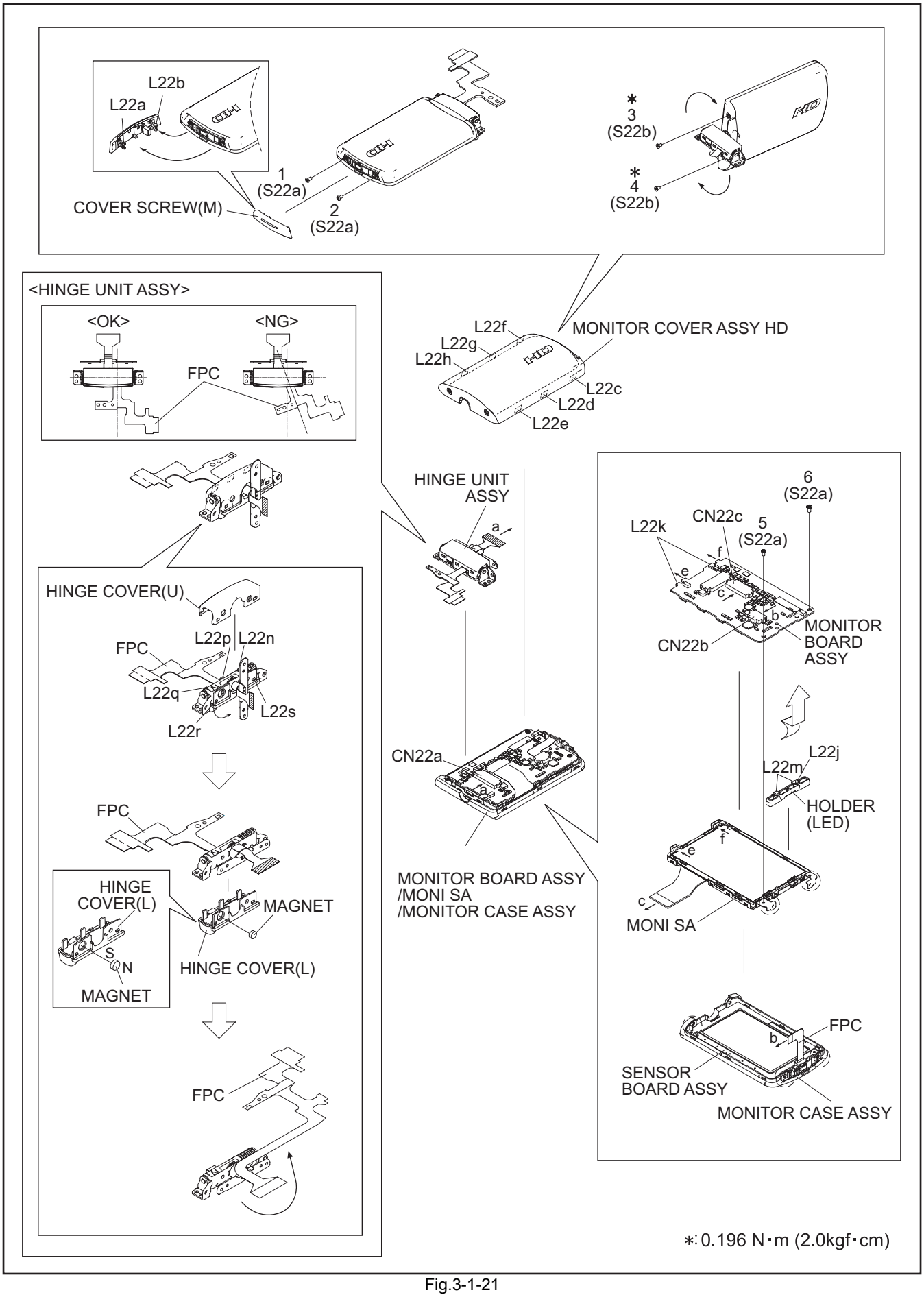

L22b
L22a
1
(S22a)
COVER SCREW(M)
2
(S22a)
*
3
(S22b)
*
4
(S22b)
<HINGE UNIT ASSY>
<OK>
<NG>
FPC
L22f
L22g
L22h
MONITOR COVER ASSY HD
L22c
L22d
L22e
HINGE UNIT
ASSY
a
HINGE COVER(U)
L22p
L22n
FPC
L22q
L22s
L22r
CN22a
MONITOR BOARD ASSY
/MONI SA
/MONITOR CASE ASSY
6
(S22a)
CN22c
5
(S22a)
L22k
f
e
c
b
CN22b
MONITOR
BOARD
ASSY
L22j
L22m
HOLDER
(LED)
FPC
HINGE
COVER(L)
MAGNET
S
N
MAGNET
HINGE COVER(L)
e
f
c
MONI SA
FPC
b
SENSOR
BOARD ASSY
MONITOR CASE ASSY
FPC
*: 0.196 N・m (2.0kgf・cm)

Fig.3-1-21

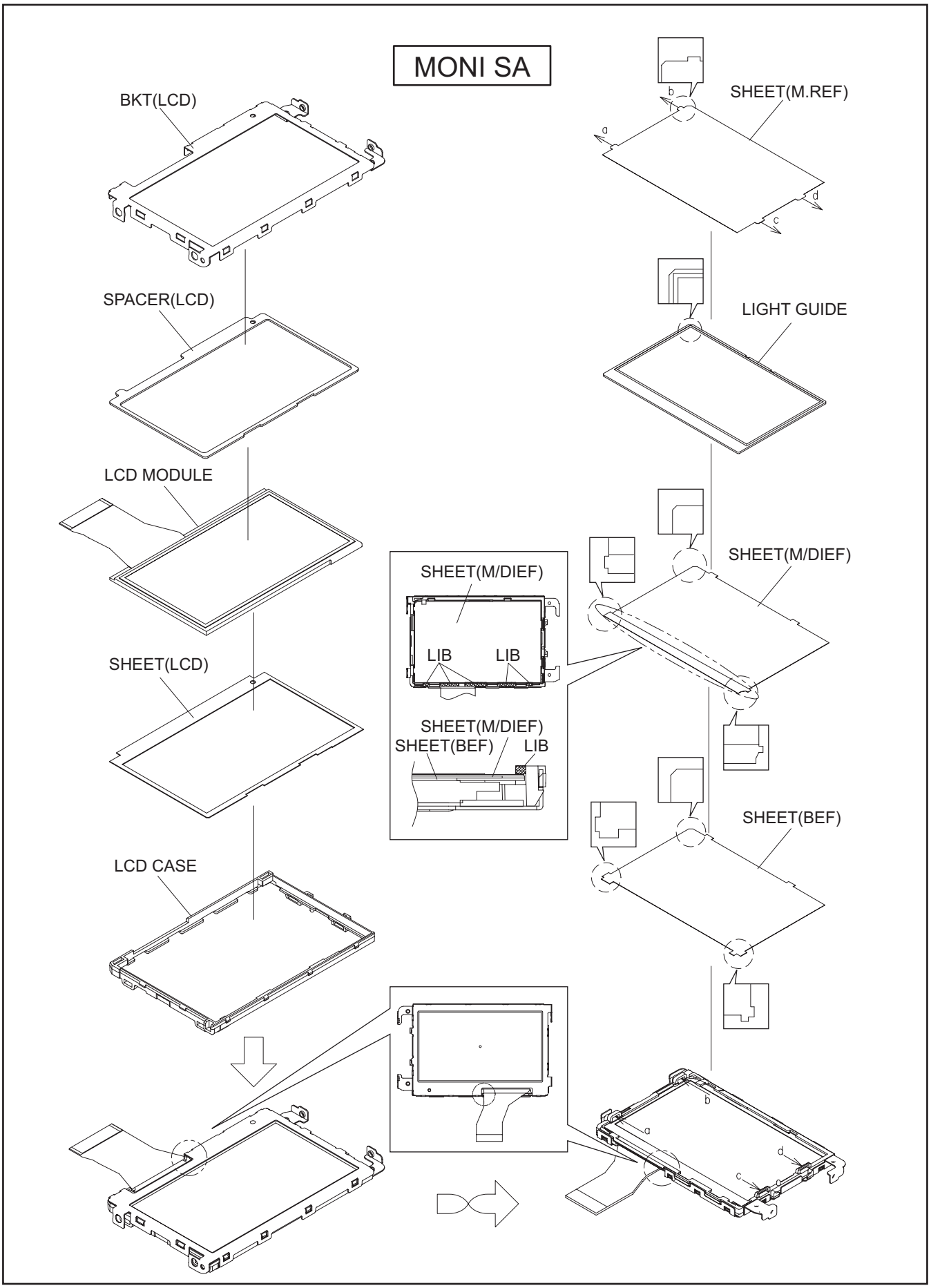

MONI SA
BKT(LCD)
SHEET(M.REF)
SPACER(LCD)
LIGHT GUIDE
LCD MODULE
SHEET(M/DIEF)
SHEET(M/DIEF)
LIB
LIB
SHEET(LCD)
SHEET(M/DIEF)
SHEET(BEF)
LIB
SHEET(BEF)
LCD CASE
a
b
c
d

Fig.3-1-22

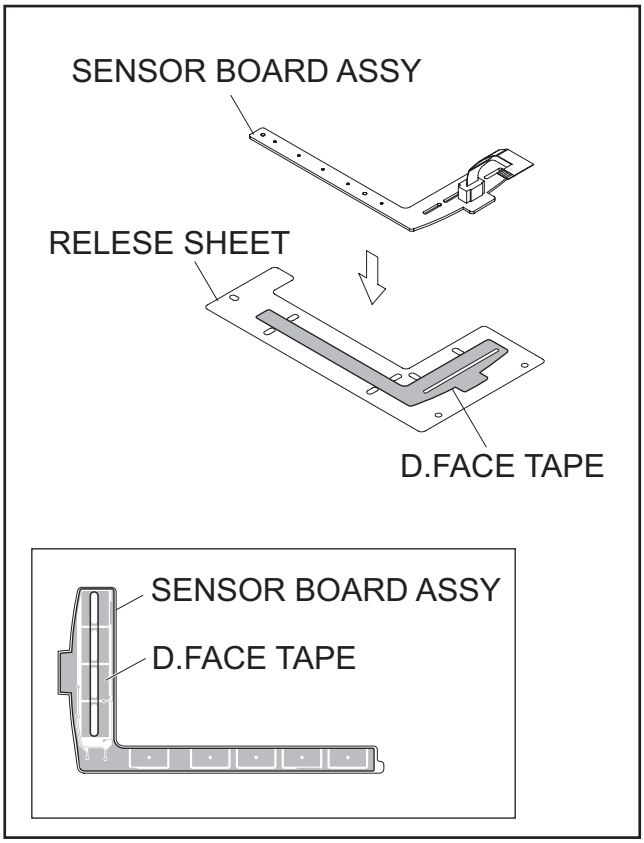

SENSOR BOARD ASSY
RELESE SHEET
D.FACE TAPE
SENSOR BOARD ASSY
D.FACE TAPE

Fig.3-1-23

SECTION 4
ADJUSTMENT

4.1 PREPARATION

4.1.1 Precaution

Camera system and deck system of this model are specially adjusted by using PC.
However, if parts such as the following are replaced, an adjustment is required. The adjustment must be performed in a Service Center equipped with the concerned facilities.

- OP BLOCK ASSEMBLY
- MONITOR ASSEMBLY
- EEP ROM (IC1003 of MAIN board)

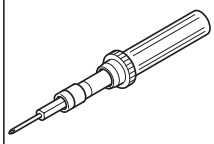
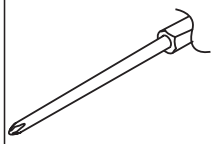
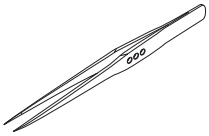
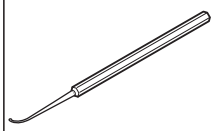
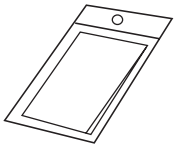
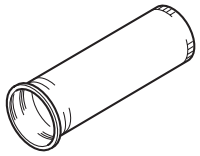
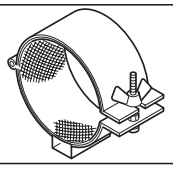
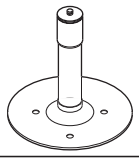
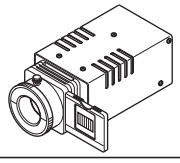
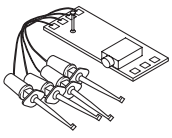
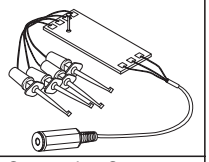
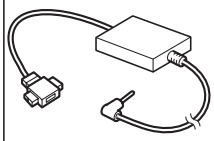
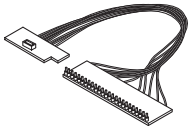
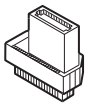
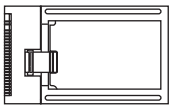
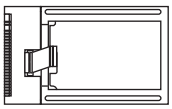
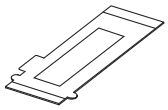
In the event of malfunction with electrical circuits, first find a defective portion with the aid of proper test instruments as shown in the following electrical adjustment procedure, and then commence necessary repair/ replacement/adjustment.

- In observing chip TP, use IC clips, etc. to avoid any stress. Prior to replacement of chip parts (especially IC), remove the solder completely to prevent peeling of the pattern.
- Use a patch cord if necessary. As for a patch cord, see the BOARD INTERCONNECTIONS.
- Since connectors are fragile, carefully handle them in disconnecting and connecting the FPC.

4.1.2 Required test equipment

- Personal computer (for Windows)
- Color TV monitor
- Oscilloscope (dual-trace type, observable 100MHz or higher frequency). The one observable 300 MHz or higher frequency is recommended.
- Digital voltmeter
- DC power supply or AC adapter
- Frequency counter (with threshold level adjuster)

4.1.3 Tools required for adjustment

Torque Driver YTU94088	Bit YTU94088-003	Tweezers P-895
		
Chip IC Replacement Jig PTS40844-2	Cleaning Cloth KSMM-01	INF Adjustment Lens YTU92001E
		
INF Adjustment Lens Holder YTU94087	Mini Stand YTU93108	Light Box Assembly YTU93096B
		
Service Support System YTU94057-132	Communication Cable YTU93111-1	
(Software)		
PC Cable QAM0099-005	Jig Connector Cable YTU93106B	Conversion Connector YTU94145K-20
		
IDE Adapter YTU96041	IDE Adapter YTU96043	FPC Wire YTU94165-40
		

- **Torque Driver**
  Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
- **Bit**
  This bit is slightly longer than those set in conventional torque drivers.
- **Tweezers**
  To be used for removing and installing parts and wires.
- **Chip IC Replacement Jig**
  To be used for adjustment of the camera system.
- **Cleaning Cloth**
  Recommended the Cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.
- **INF Adjustment Lens**
  To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035 and No. YA-SB-10223.
- **INF Adjustment Lens Holder**
  To be used together with the Camera stand for operating the Videocamera in the stripped-down condition such as the status without the exterior parts or for using commodities that are not yet conformable to the interchangeable ring. For the usage of the INF lens holder, refer to the Service Bulletin No. YA-SB-10035.
- **Mini Stand**
  To be used together with the INF adjustment lens holder. For the usage of the Mini stand, refer to the Service Bulletin No. YA-SB-10035.
- **Light Box Assembly**
  To be used for adjustment of the camera system. For the usage of the Light box assembly, refer to the Service Bulletin No. YA-SB-10035 and No. YA-SB-10218.
- **Service Support System**
  To be used for adjustment with a personal computer. Software can be downloaded also from JS-net.
- **Communication Cable**
  Connect the Communication cable between the PC cable and Jig connector cable when performing a PC adjustment.
- **PC Cable**
  To be used to connect the Videocamera and a personal computer with each other when a personal computer issued for adjustment.
- **Jig Connector Cable**
  Connected to JIG CONNECTOR of the main board and used for electrical adjustment, etc.
- **Conversion Connector**
  Conversion connector is used to convert the connector part of the JIG connector cable.
- **IDE Adapter(YTU96041)**
  To be used for HDD test.
- **IDE Adapter(YTU96043)**
  To be used for HDD test.
- **FPC Wire**
  To be used for connecting the HDD to the IDE adapter.

4.2 JIG CONNECTOR CABLE CONNECTION

4.2.1 Cautions

(1) Only 9 of 30pins of JIG CONNECTOR CABLE(PN:YTU93106B) are extended with wires. Additional 2pins (13 and 28) need to be soldered and extended with the wires for adjustment and checking.
See Fig. 4-2-1 for details.

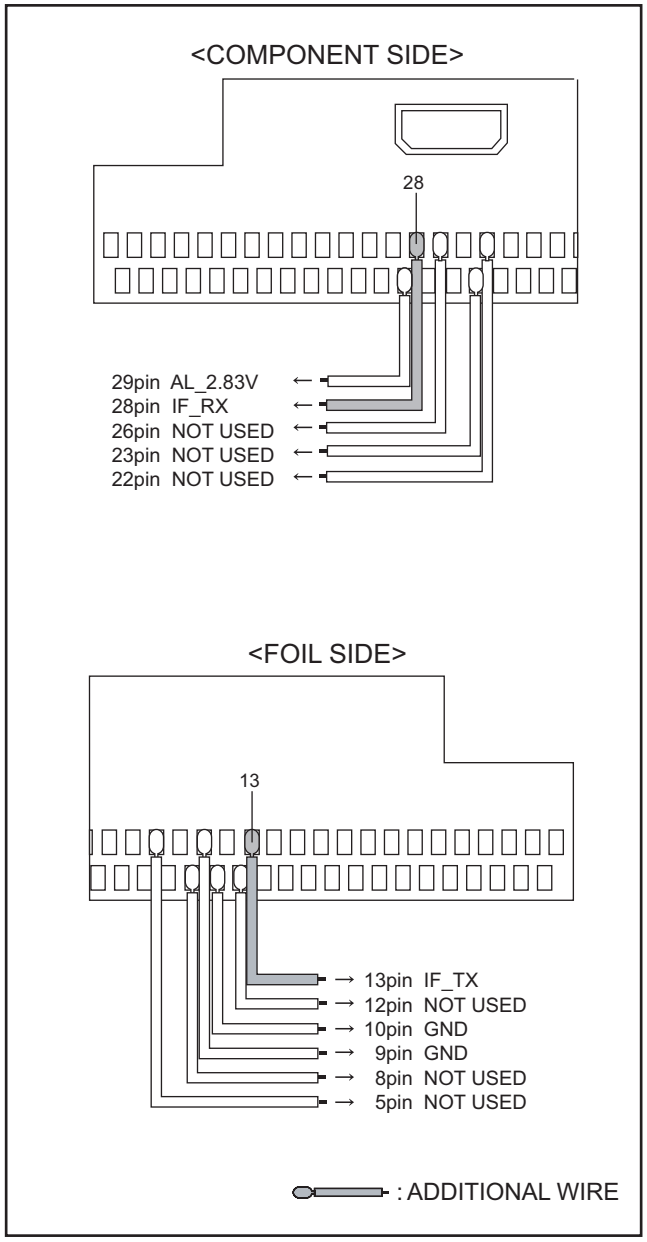


Fig.4-2-1

■ **Connection procedure**

·Remove the 2 screws (1-2), and then remove the TOP COVER ASSY.

NOTE1a:

Release or remove the JACK COVER ASSY as it interferes with the disassembly of TOP COVER ASSY.

NOTE1b:

To remove the TOP COVER ASSY, press [A] indicated with an arrow, and release the HOOK (L1a) first.

NOTE1c:

When removing the last HOOK (L1e), be careful not to deform or apply excess force to the parts to avoid possible damage.

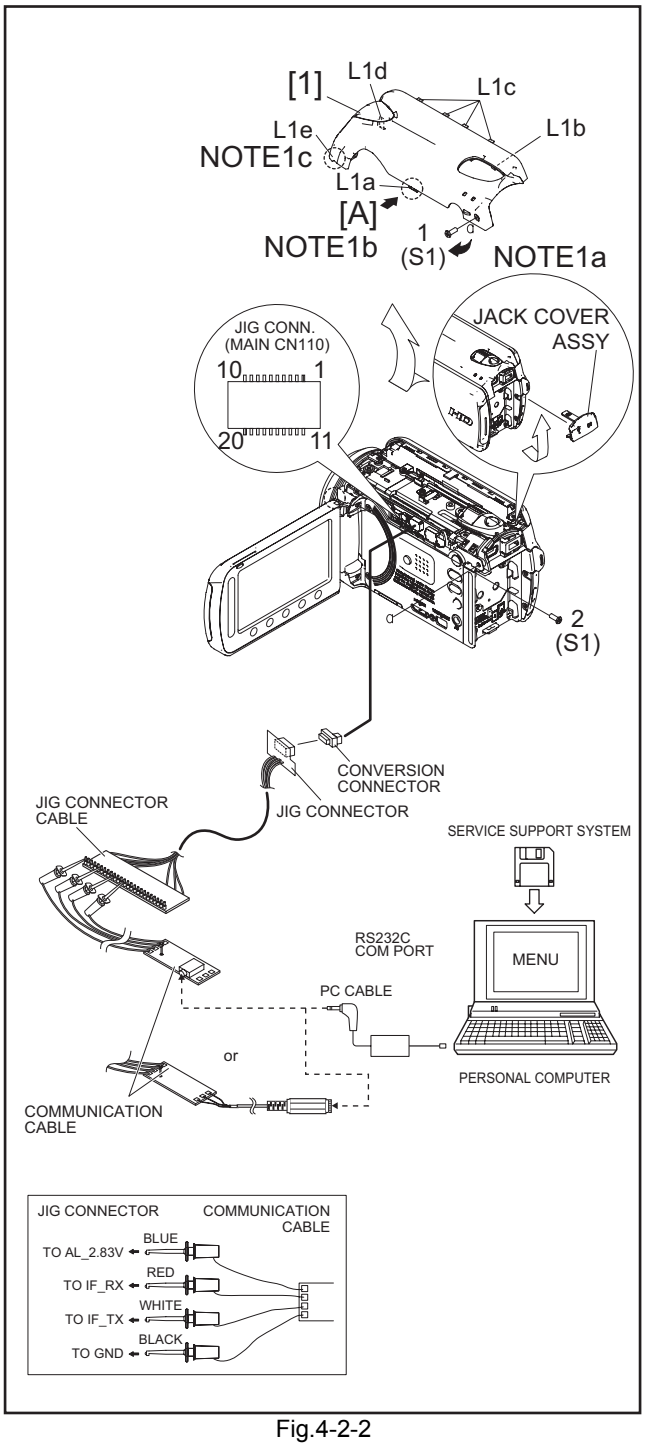


Fig.4-2-2

■ **Jig connector diagrams**

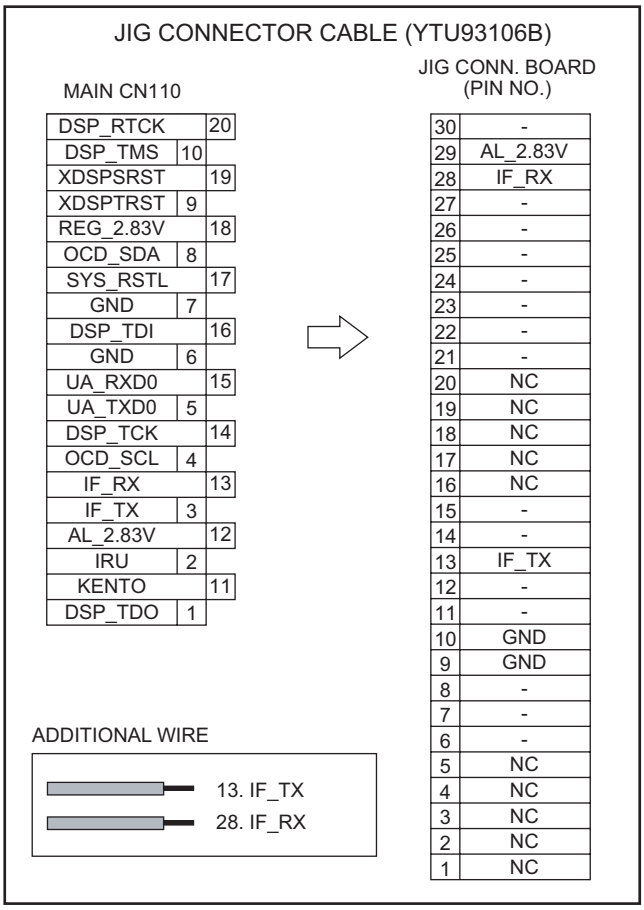


Fig.4-2-3

■ **Conversion Connector**

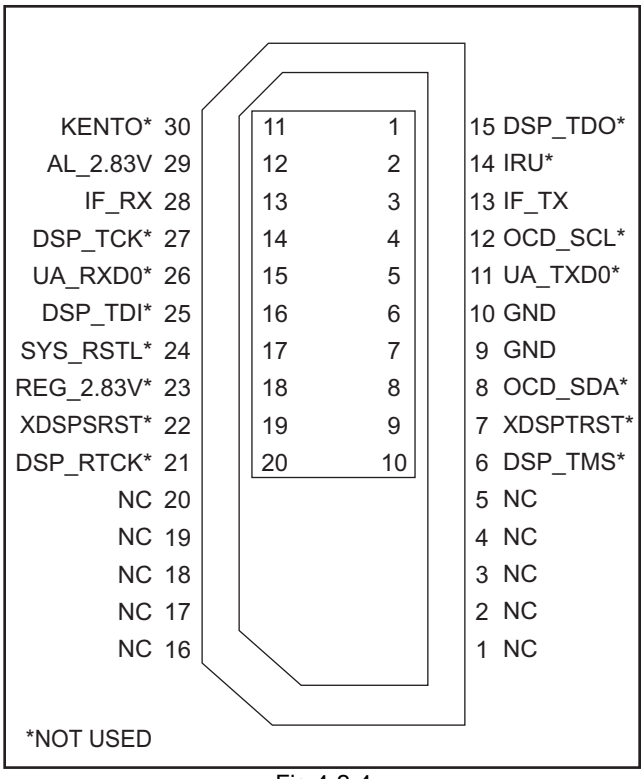


Fig.4-2-4

4.3 ELECTRICAL ADJUSTMENT

Electrical adjustment is performed by using a personal computer and software for SERVICE SUPPORT SYSTEM. Read README.TXT file to use the software properly.
As for the connection of cables, see "4.2 JIG CONNECTOR CABLE CONNECTION".

4.4 IDE ADAPTER AND FPC WIRE

- IDE ADAPTER and FPC WIRE are used for HDD test.
  Check with the NOTE, and then refer to the below figure (Fig. 4-4-1) for the connection procedure.

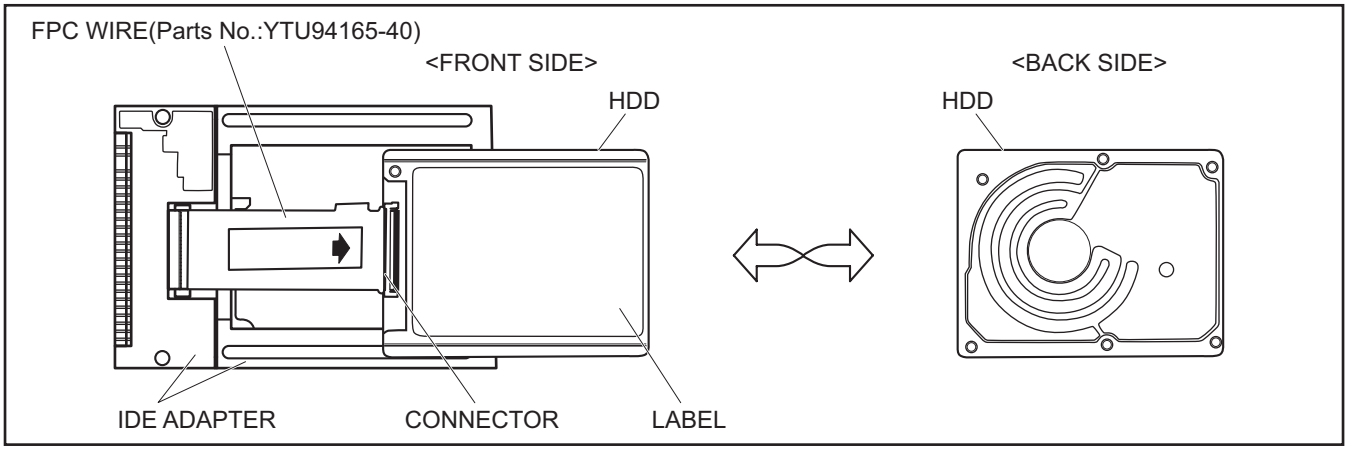


Fig.4-4-1

<NOTE>

- During the procedure, be careful in handling the parts. Pay special attention not to give any external shock to the HDD.
- There are two types of IDE ADAPTER (Parts Number: YTU96041, YTU96043). Either type can be used.
- Using the FPC WIRE originally used with this unit will damage the HDD.
  Use the FPC WIRE (Parts Number: YTU94165-40) to connect the IDE ADAPTER and the HDD.
  Connecting the FPC WIRE upside-down will damage the HDD.

CABINET PARTS AND ELECTRICAL PARTS(1)

Symbol No.	[1]		[2]		[3]							[4]	[5]			[6]		[7]		[8]	[9]	[10]	[11]	[12]	[13]	[14]		[15]	
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11	-	12	13	14	15	16	17	18	19	20	-	21	-	22	23	24	25	26
Place to stick screw												-					*					-	*	-					
Reference drawing (Fig.No.)	3-2-1		3-2-2		3-2-3							3-2-4	3-2-5			3-2-6		3-2-7		3-2-8			3-2-9		3-2-10	3-2-11		3-2-12	
Screw tightening torque	a											-	a									-	a	-	a				

CABINET PARTS AND ELECTRICAL PARTS(2)

Symbol No.	[16]		[17]	[18]		[19]		[20]			[21]			[22]			[23]
Removing order of screw	27	28	-	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Place to stick screw	*		-											**	*	*	**
Reference drawing (Fig.No.)	3-2-13		3-2-14	3-2-15		3-2-16		3-2-17			3-2-18			3-2-19			3-2-20
Screw tightening torque	a		-	a				b						a	c		a

[22]MONITOR ASSY

Symbol No.	[22]					
Removing order of screw	1	2	3	4	5	6
Place to stick screw	**	**	**	**	**	**
Reference drawing (Fig.No.)	3-2-21					
Screw tightening torque	a		c		a	

NOTE:

1) * and ** (This mark shows where to attach the screws) : Do not reuse the screws because the screw lock bond was applied to prevent the screws from loosening. Prepare the specified screws and use them in place of the removed screws.

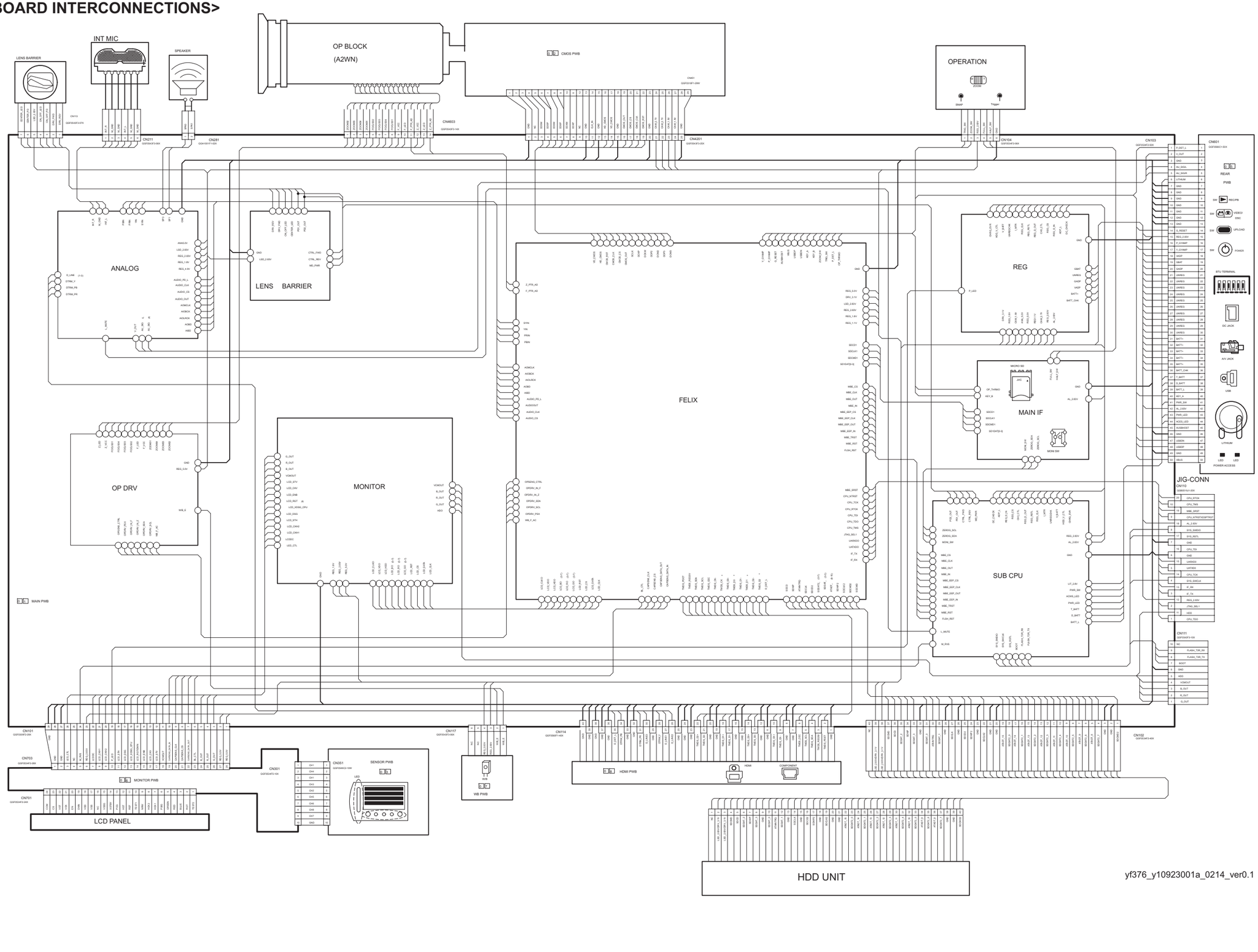
2) Tightening torque for the screws

- There are setting limits of the torque value for the torque driver. If the value exceeds the setting value, take it as a rough measurement (reference value), and tighten the screw manually.
- The specified torque value is a recommended value of the initial assembly. Therefore, set the value below the specified torque value in the assembling procedure. Be careful not to break either the screws or the screw holes.

3) The number of screws used in this product is subject to change.

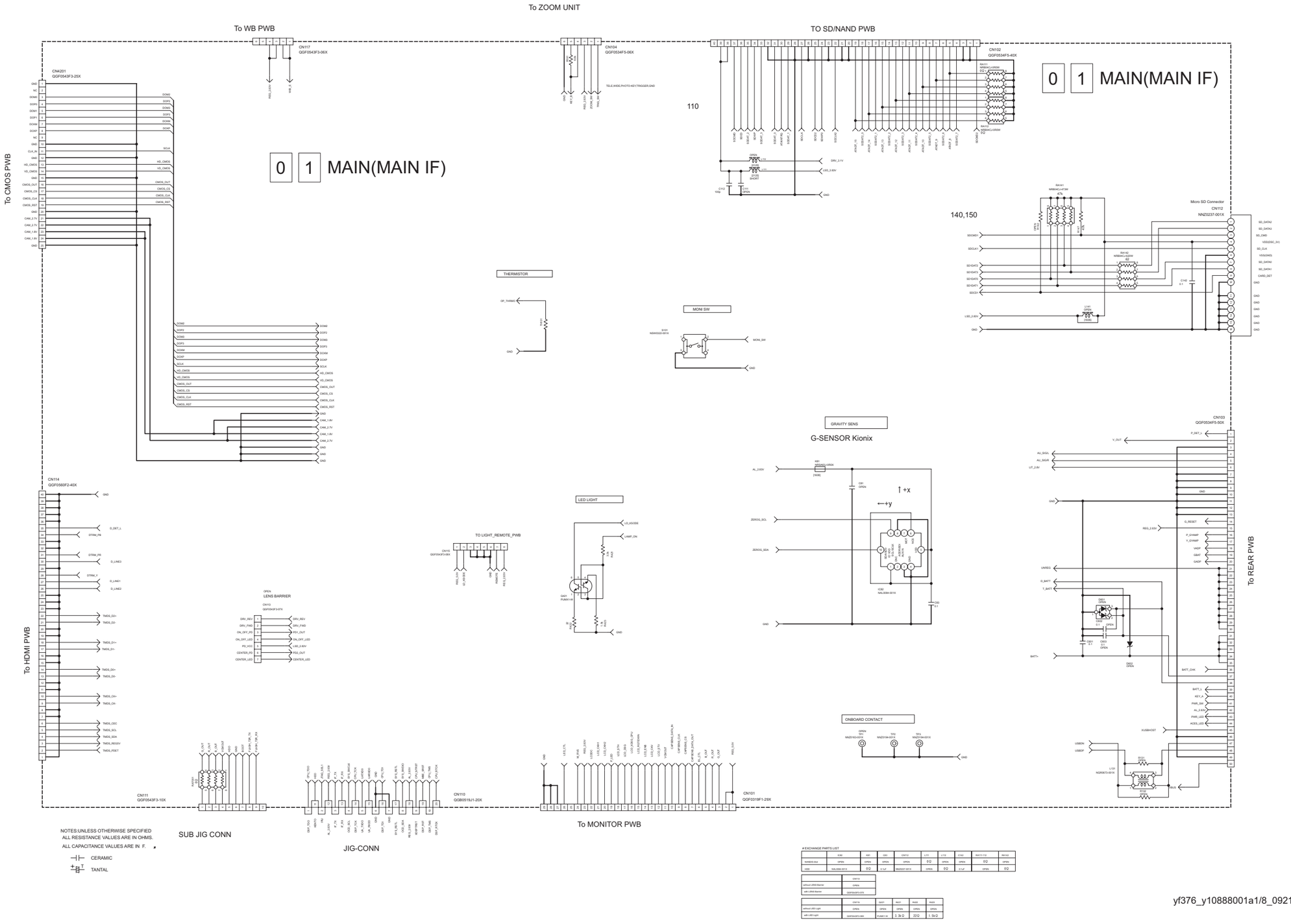
a : 0.088N･m (0.9kgf･cm) b : 0.118N･m (1.2kgf･cm) c : 0.196N･m (2.0kgf･cm)

<BOARD INTERCONNECTIONS>



<MAIN(MAIN IF) SCHEMATIC DIAGRAM>

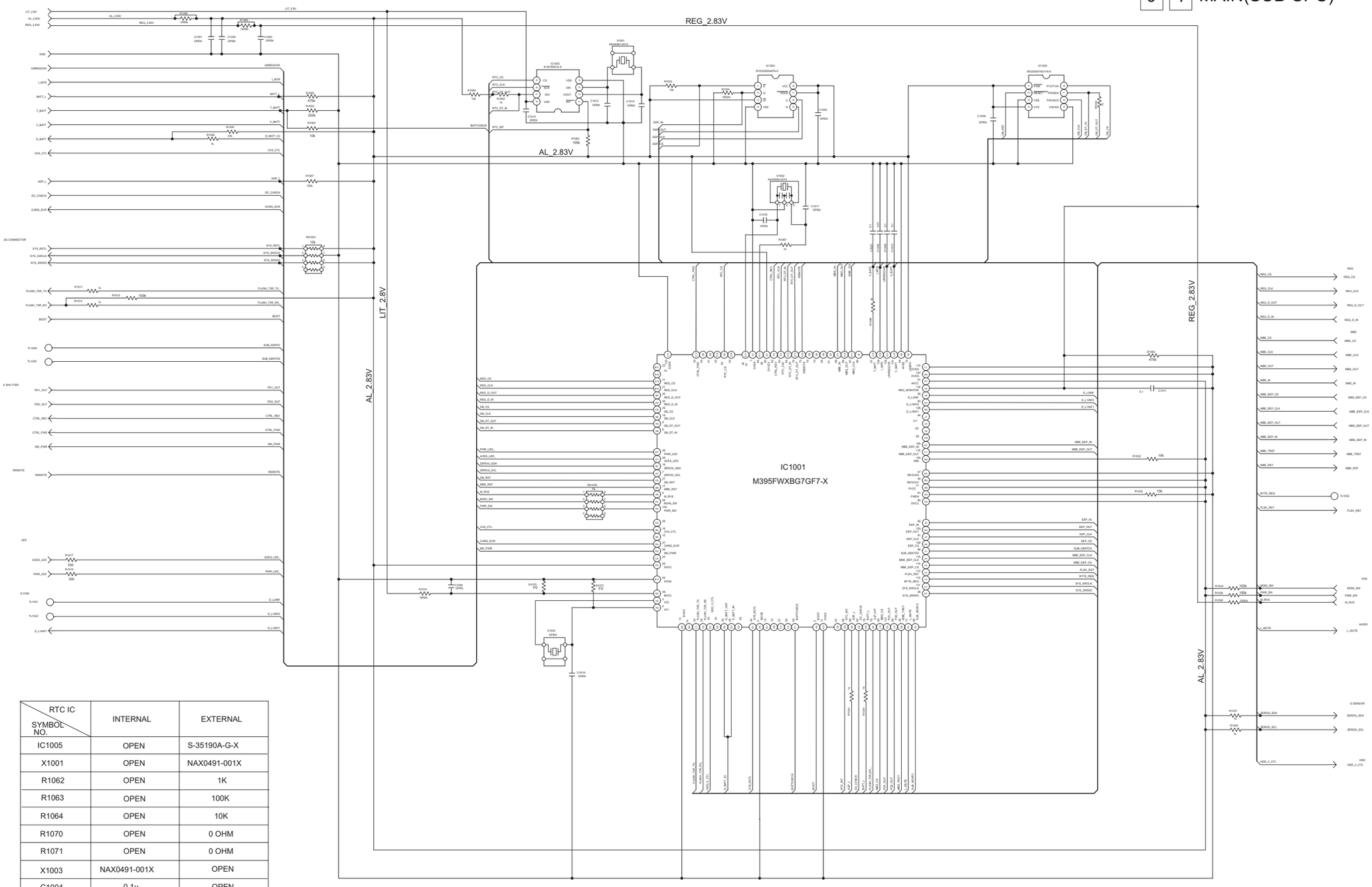
Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.



<MAIN(SUB CPU) SCHEMATIC DIAGRAM>

Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.

0 1 MAIN(SUB CPU)

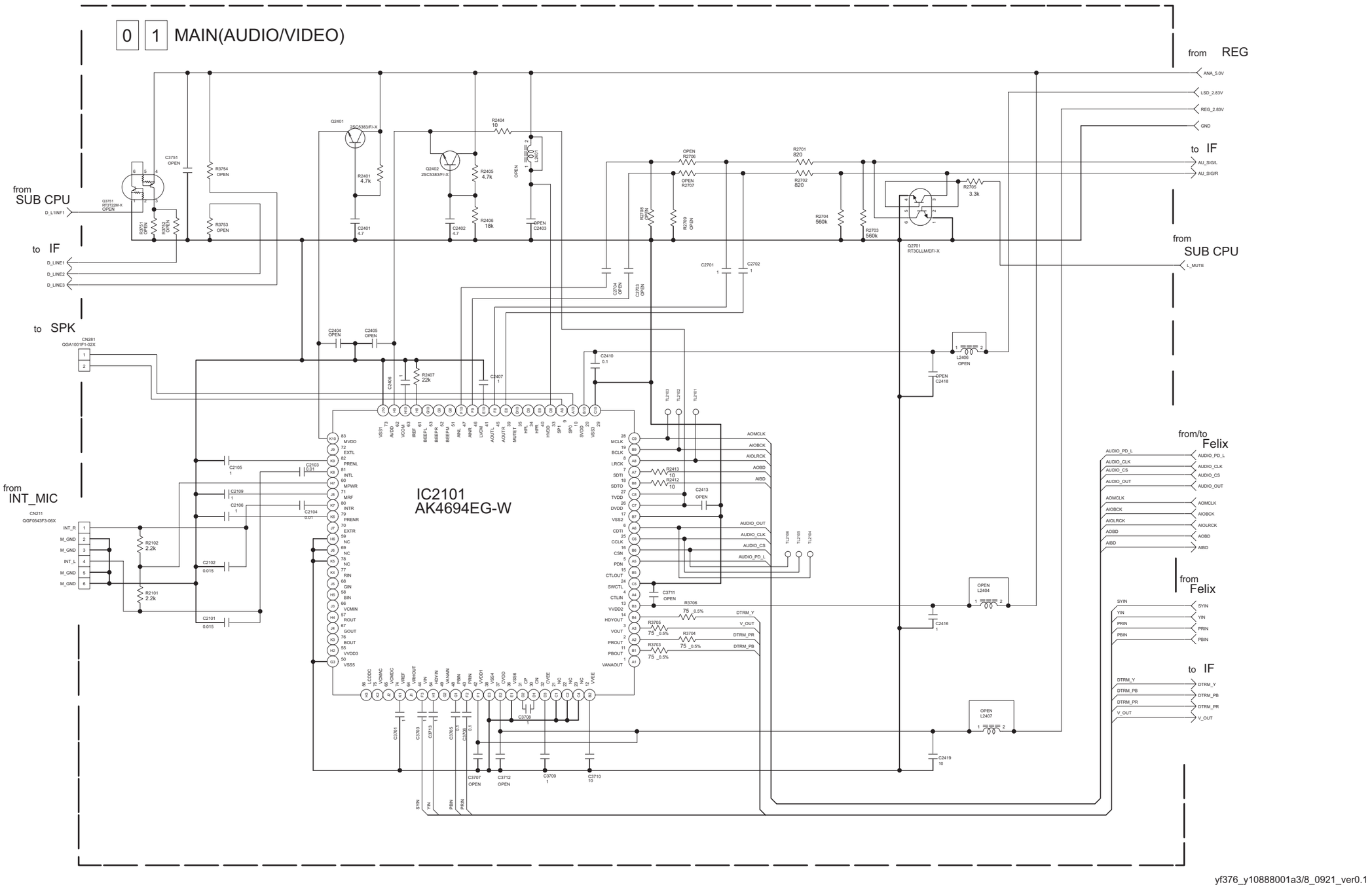


RTC IC / SYMBOL NO.	INTERNAL	EXTERNAL
IC1005	OPEN	S-35190A-G-X
X1001	OPEN	NAX0491-001X
R1062	OPEN	1K
R1063	OPEN	100K
R1064	OPEN	10K
R1070	OPEN	0 OHM
R1071	OPEN	0 OHM
X1003	NAX0491-001X	OPEN
C1004	0.1u	OPEN
R1014	10K	OPEN

yf376_y10888001a2/8_0921_ver0.1

<MAIN(AUDIO/VIDEO) SCHEMATIC DIAGRAM>

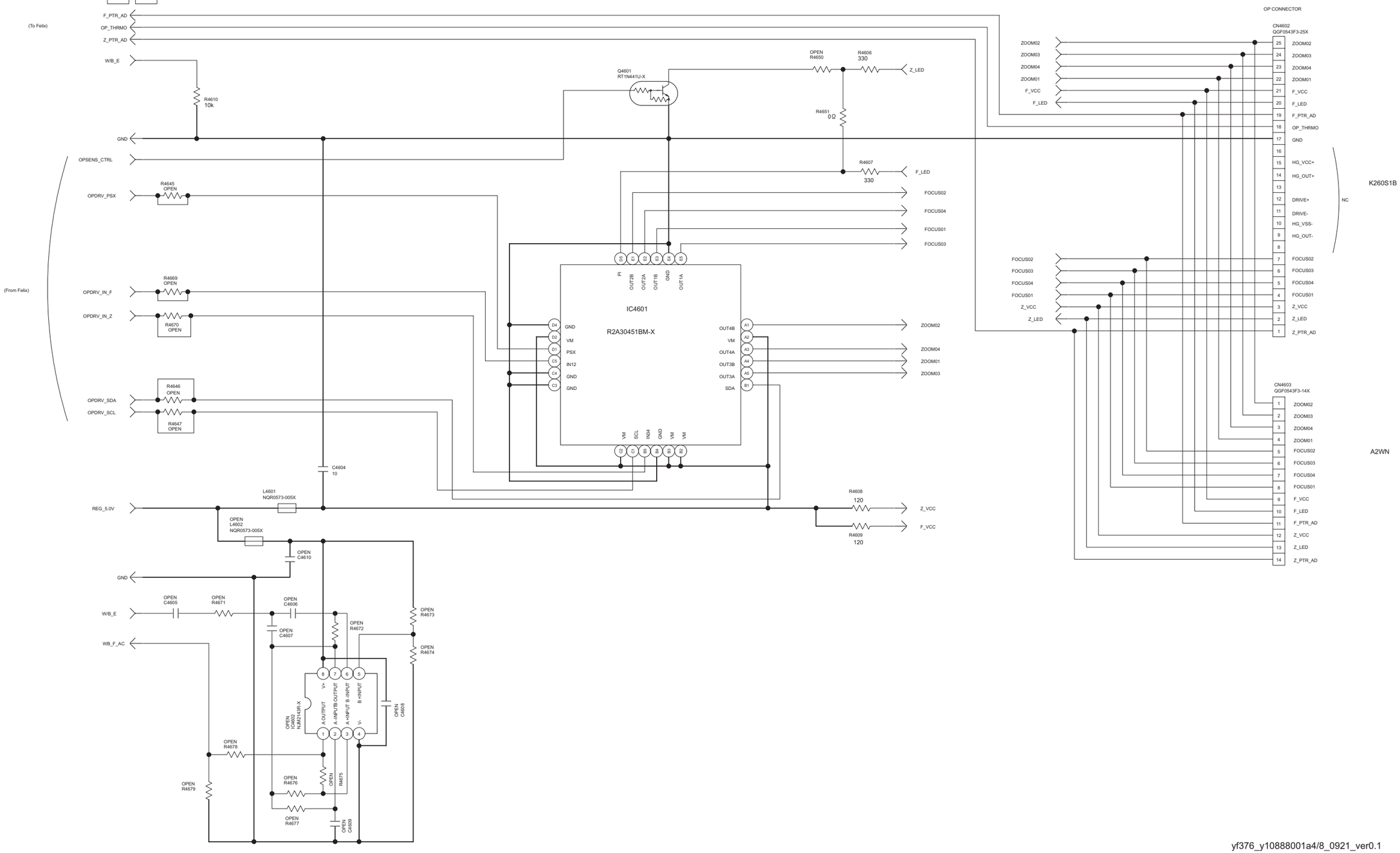
Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.



<MAIN(OP DRV) SCHEMATIC DIAGRAM>

Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.

0 1 MAIN(OP DRV)

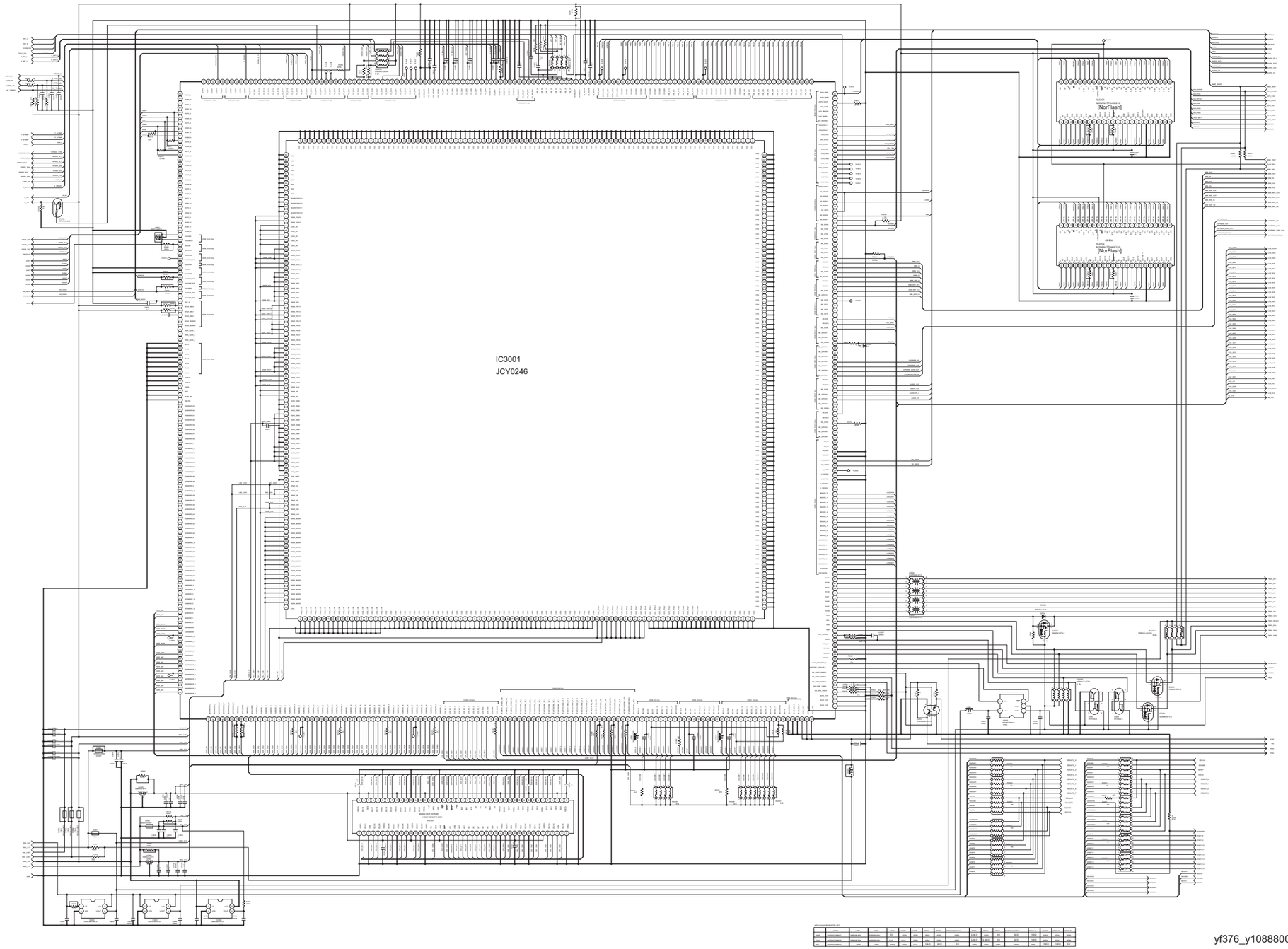


yf376_y10888001a4/8_0921_ver0.1

<MAIN(FELIX) SCHEMATIC DIAGRAM>

Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.

0 1 MAIN(FELIX)

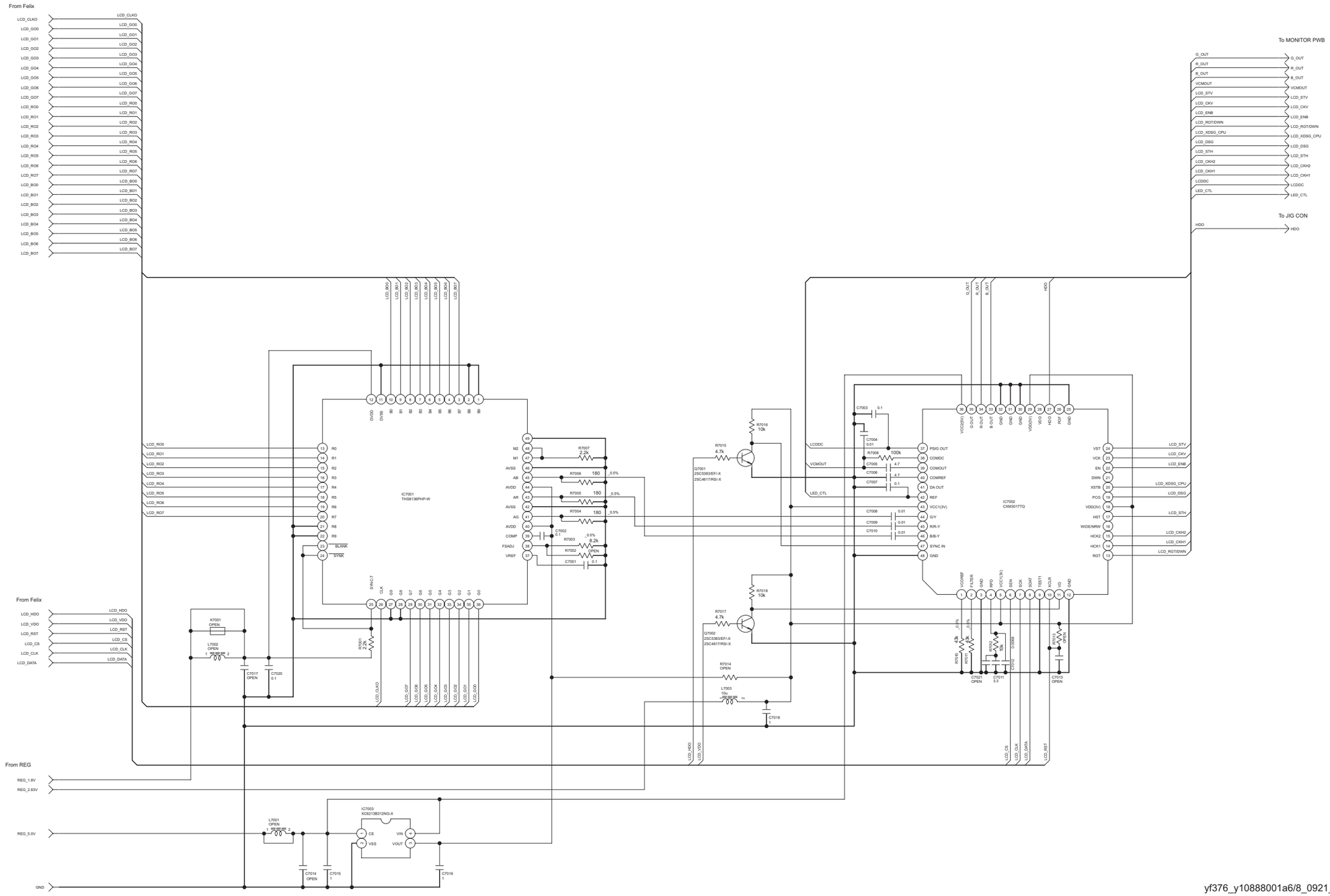


yf376_y10888001a5/8_0921_ver0.1

<MAIN(MONITOR) SCHEMATIC DIAGRAM>

Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.

0 1 MAIN(MONITOR)

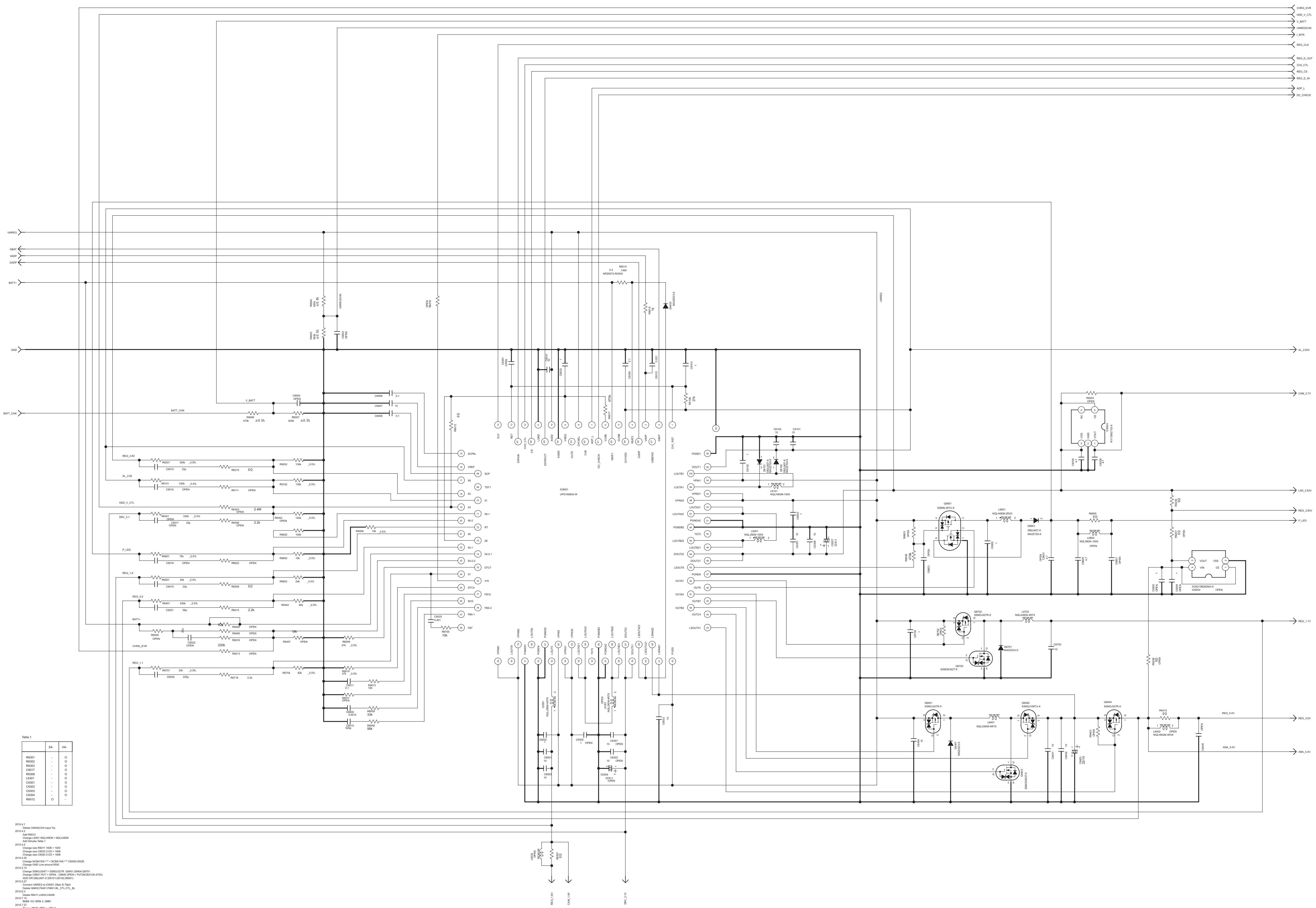


yf376_y10888001a6/8_0921_ver0.1

<MAIN(REG) SCHEMATIC DIAGRAM>

Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.

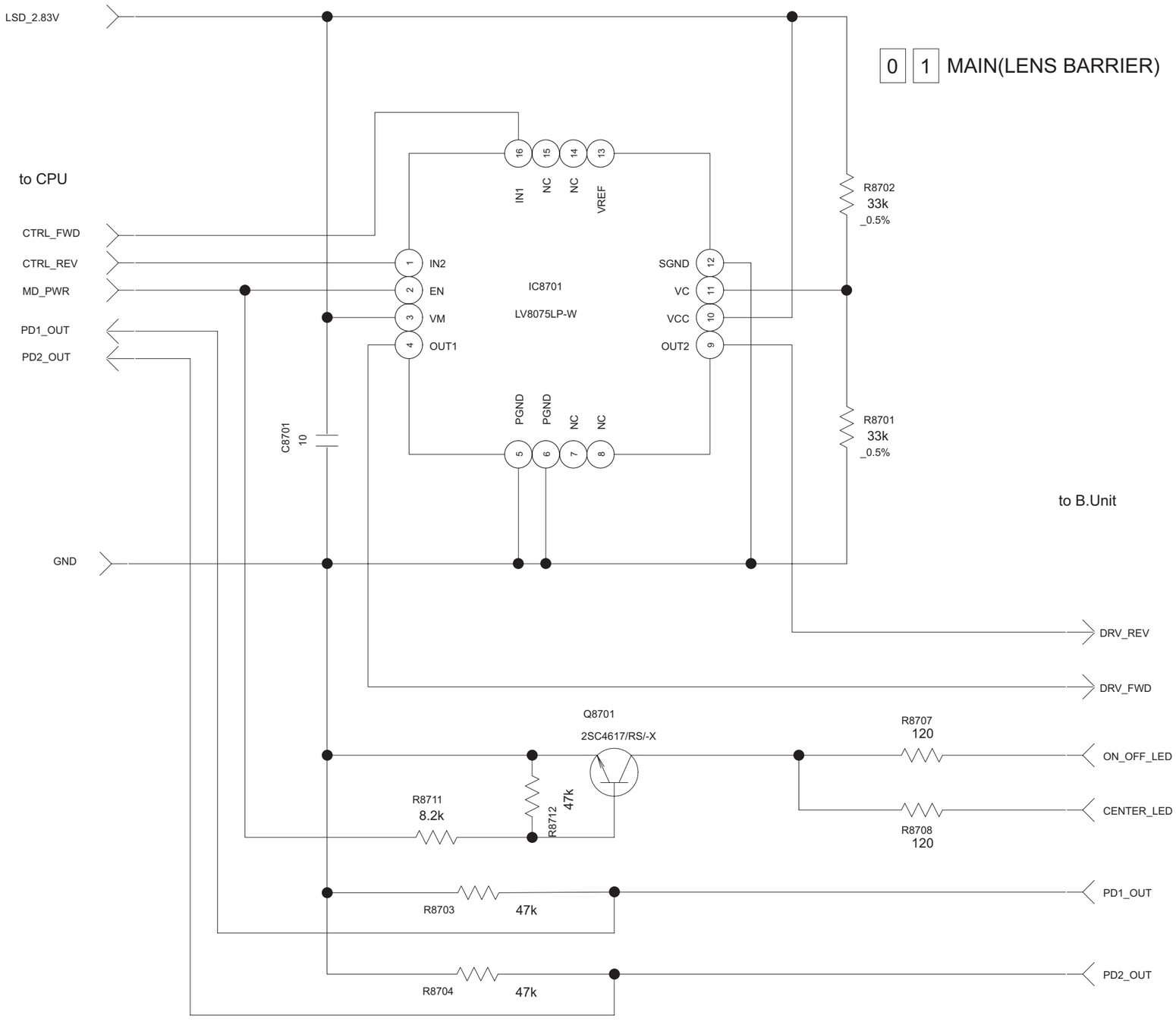
0 1 MAIN(REG)



yf376_y10888001a7/8_0921_ver0.1

<MAIN(LENS BARRIER) SCHEMATIC DIAGRAM>

Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.



yf376_y10888001a8/8_0921_ver0.1

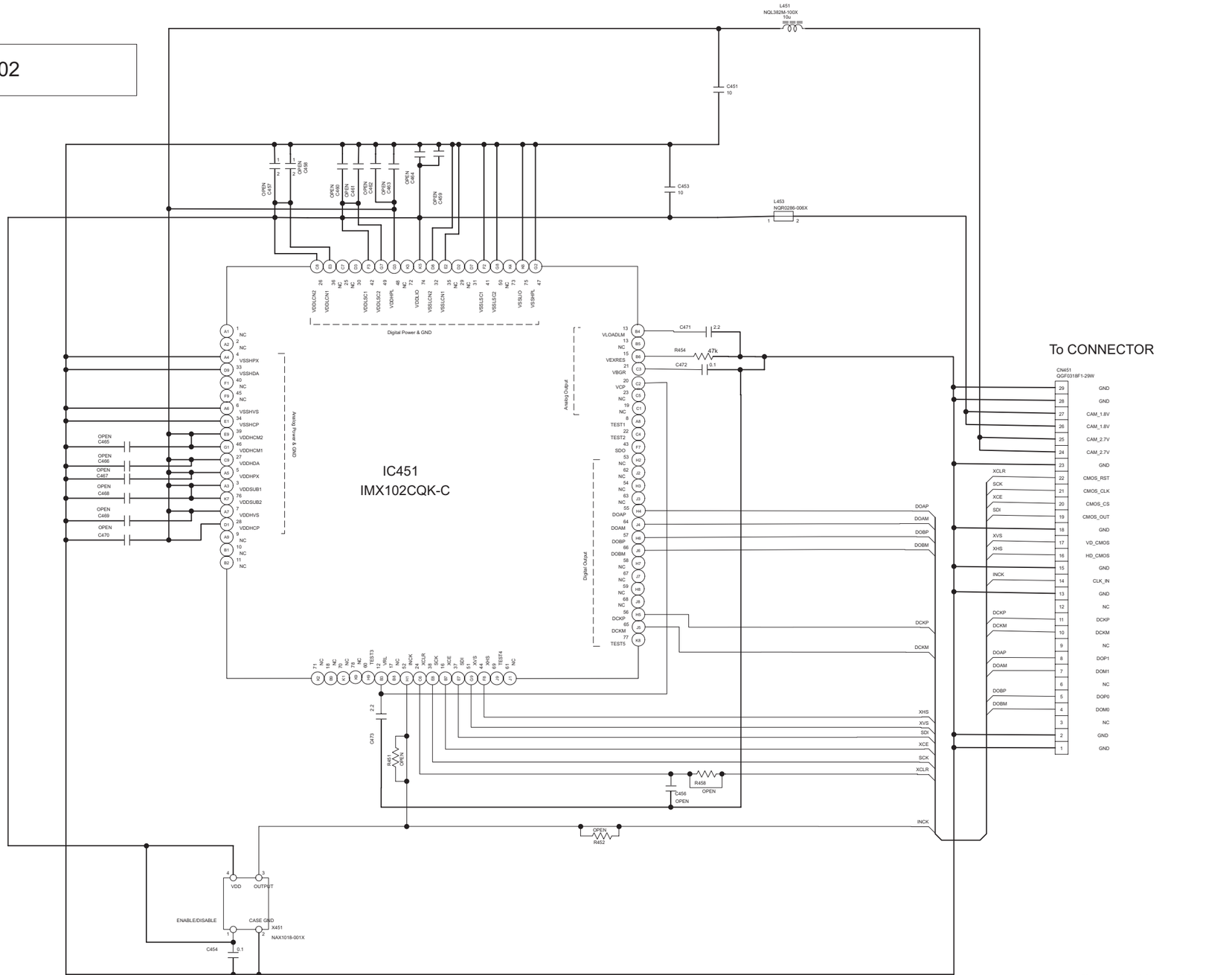
<CMOS SCHEMATIC DIAGRAM>

Notes : 1. The parts number in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.

2. The schematic diagram is only for reference. Avoid replacing individual parts.
Replace the entire unit only.
When CMOS BOARD ASSEMBLY needs replacement, replace the CMOS FRM ASSEMBLY in whole because it cannot be replaced alone.

CMOS SENSOR IMX102

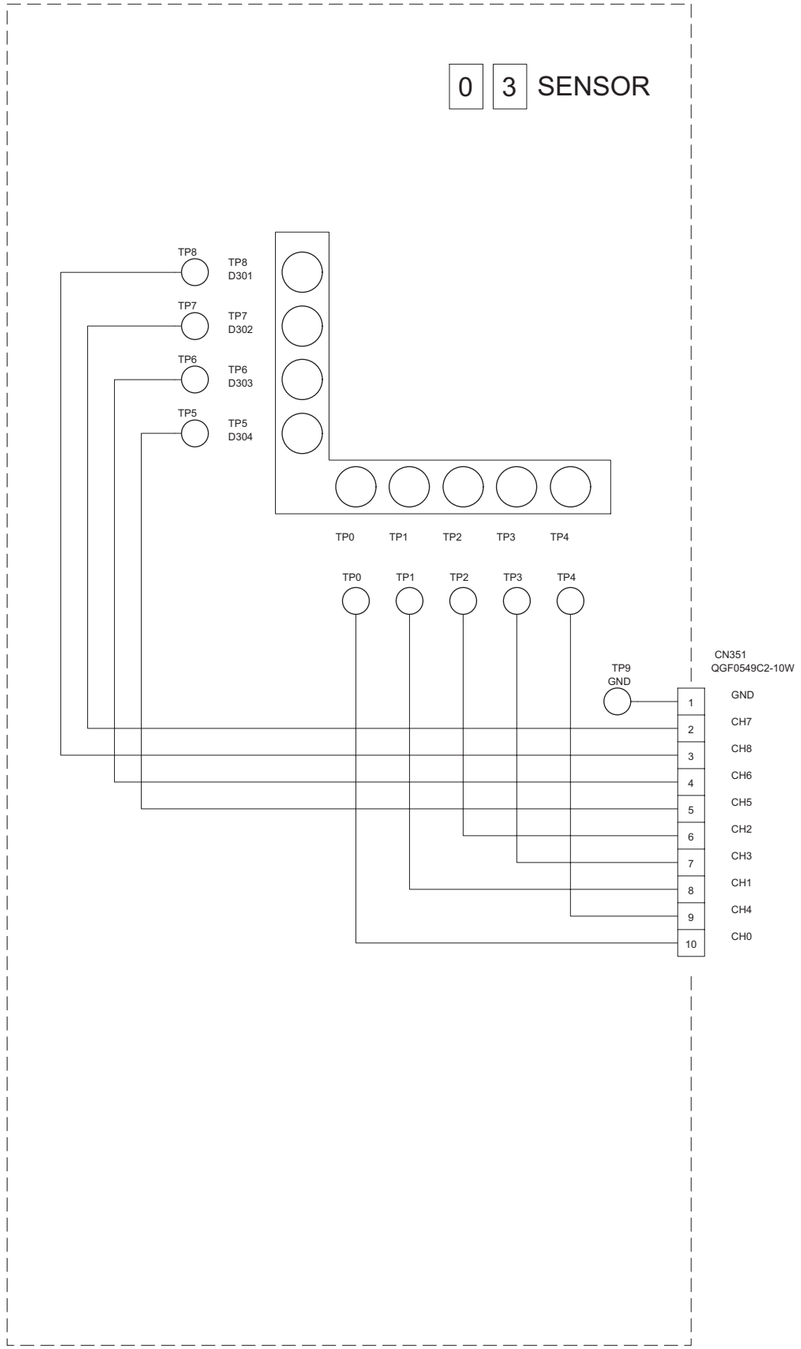
0 2 CMOS



yf376_y30490001a_0207_ver0.1

<SENSOR SCHEMATIC DIAGRAM>

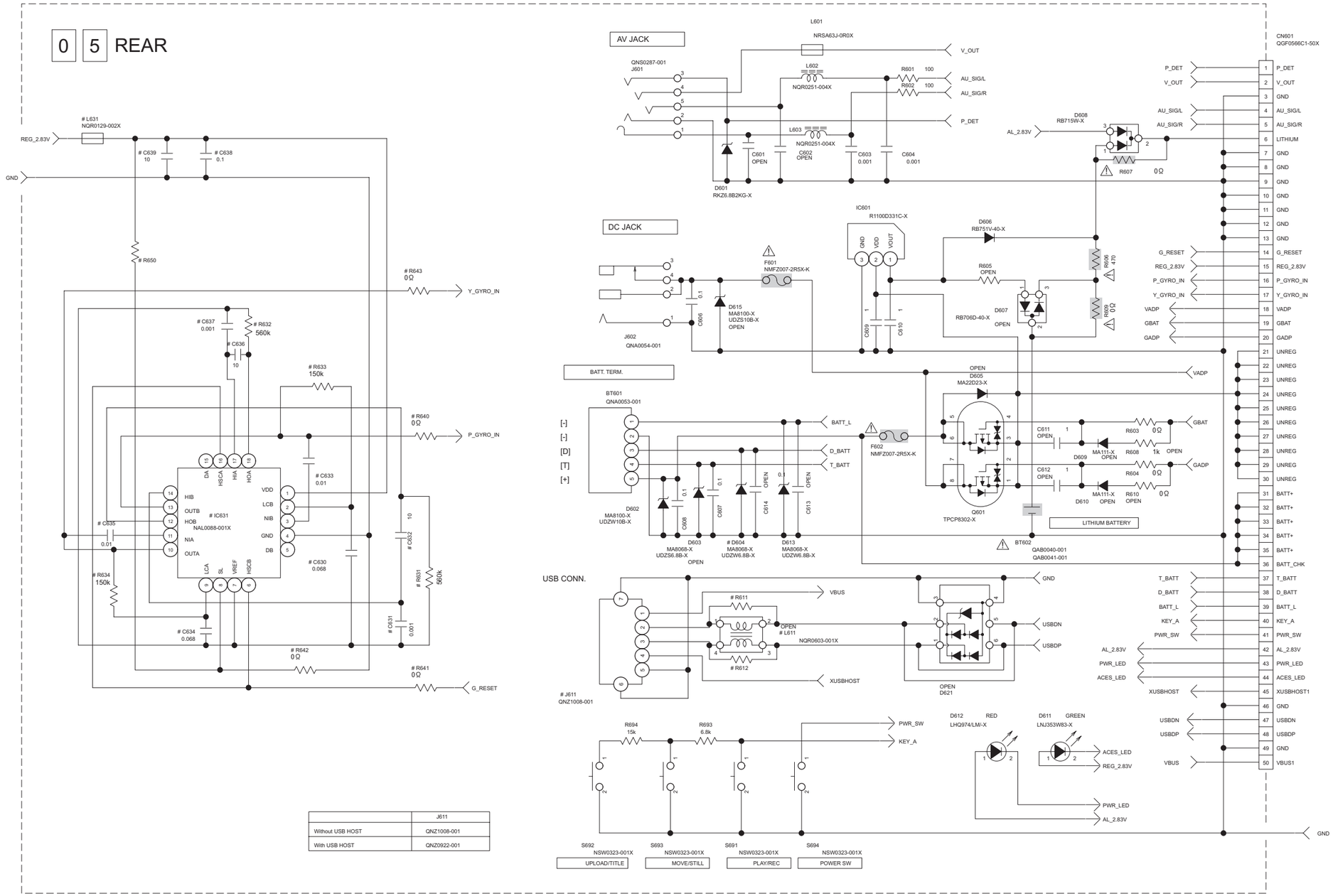
Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.



<REAR SCHEMATIC DIAGRAM>

Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.

0 5 REAR



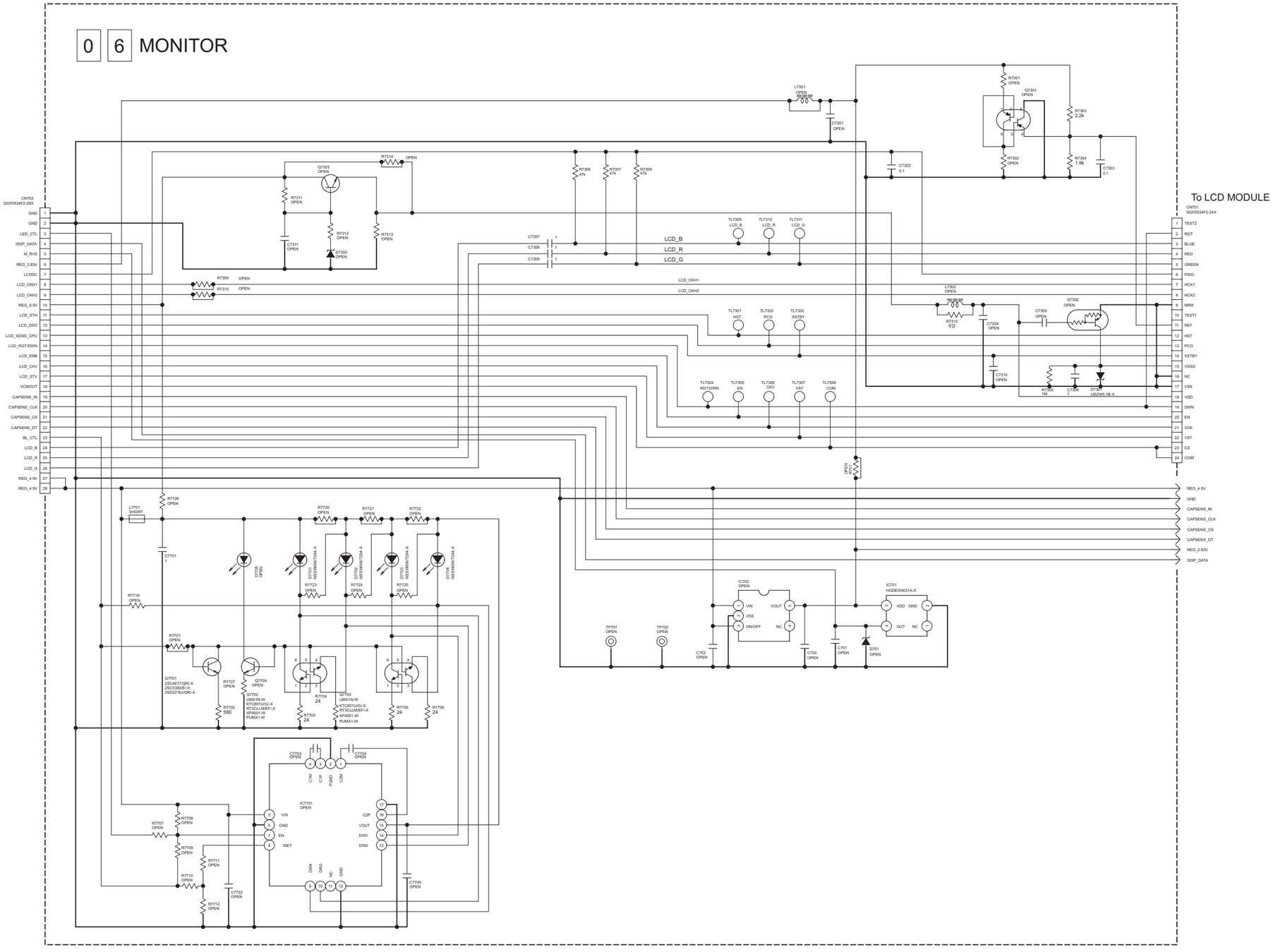
	J611
Without USB HOST	QNZ1008-001
With USB HOST	QNZ0922-001

⚠ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

yf376_y10849001a_0207_ver0.1

<MONITOR SCHEMATIC DIAGRAM>

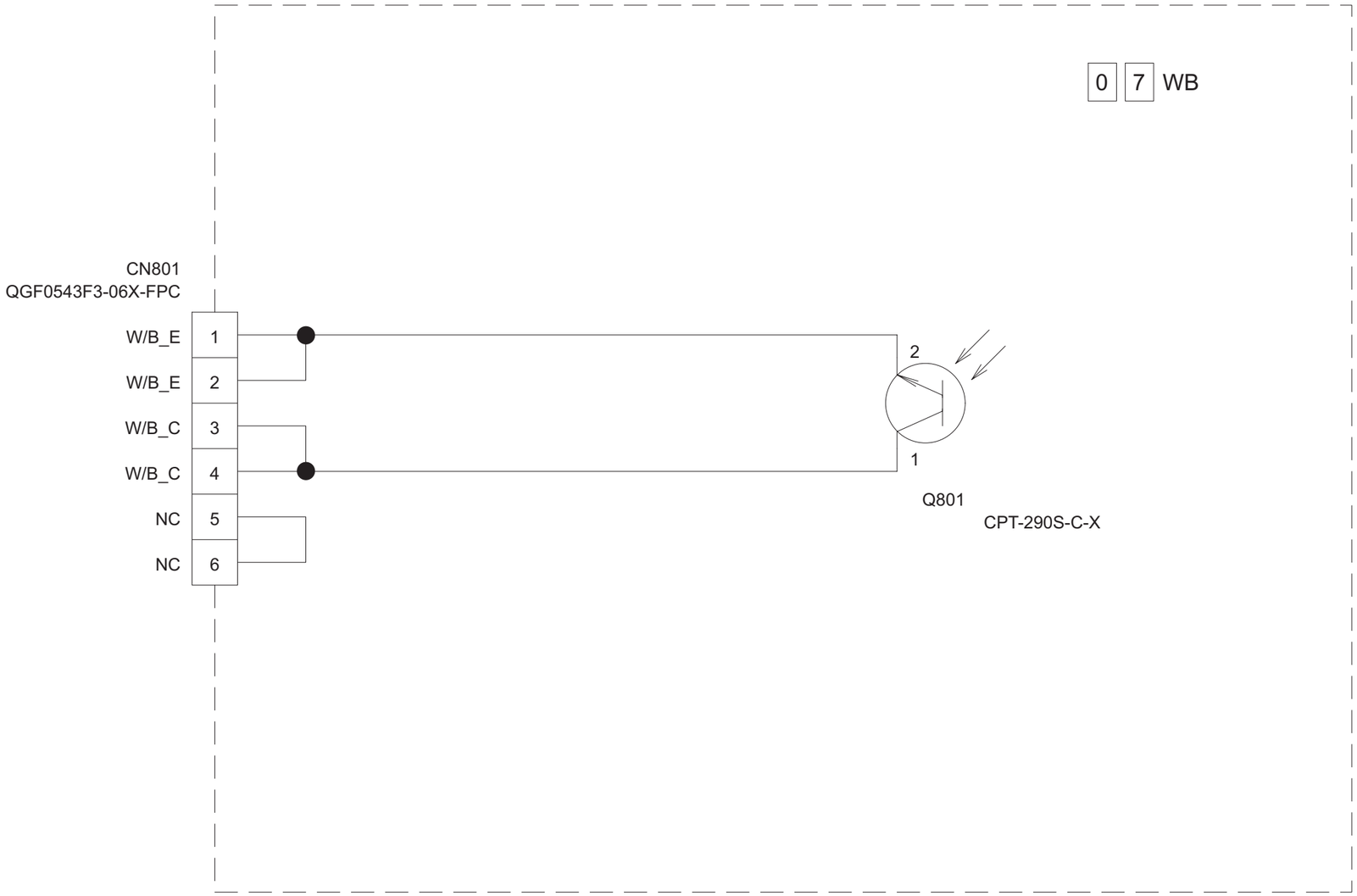
Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.



yf376_y20515001a1/2_0207_ver0.1

<WB SCHEMATIC DIAGRAM>

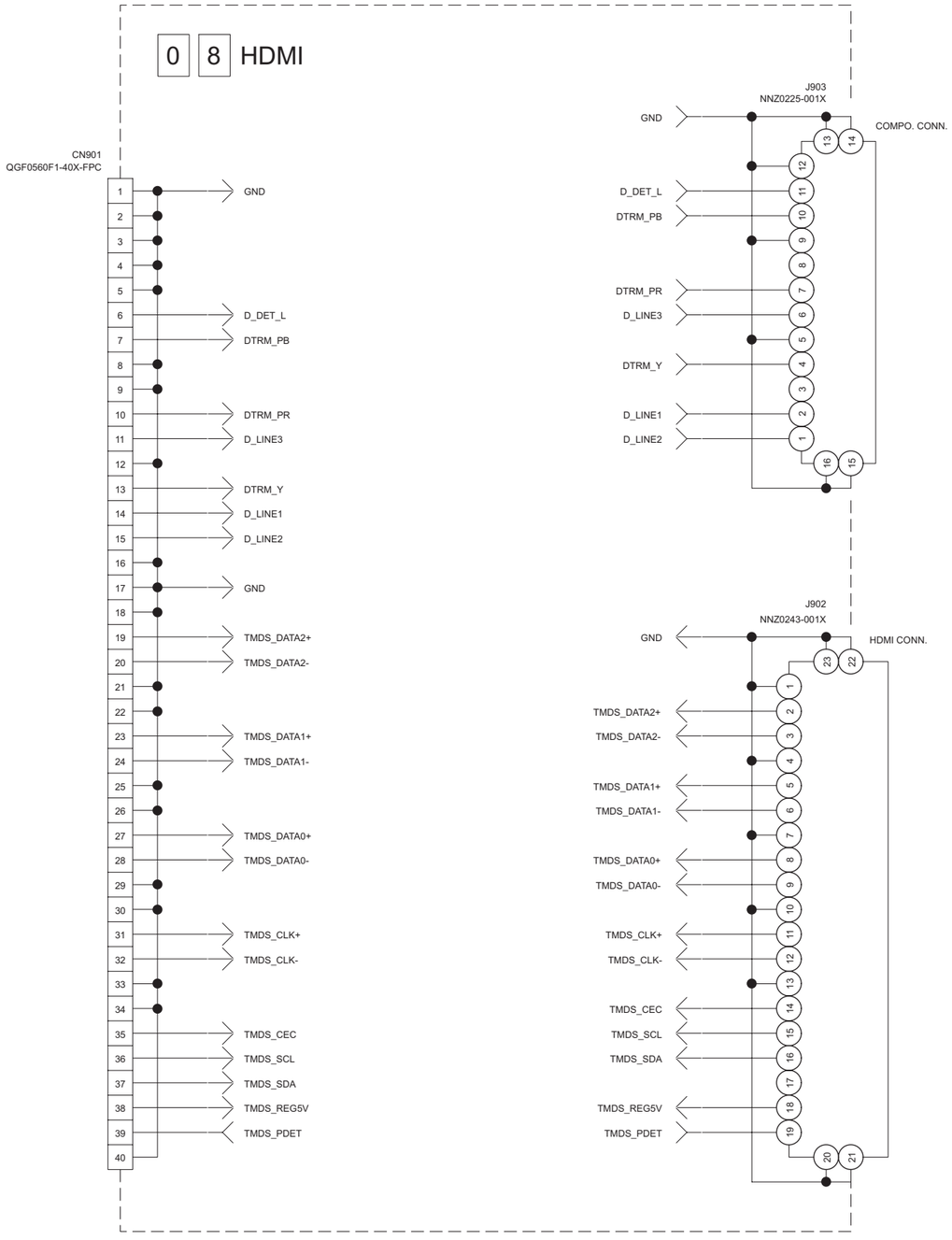
Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.



yf376_y40277001a_0207_ver0.1

<HDMI SCHEMATIC DIAGRAM>

Note : The parts numbers in the schematic diagram are for references only.
When replacing the parts, refer to the PARTS LIST.

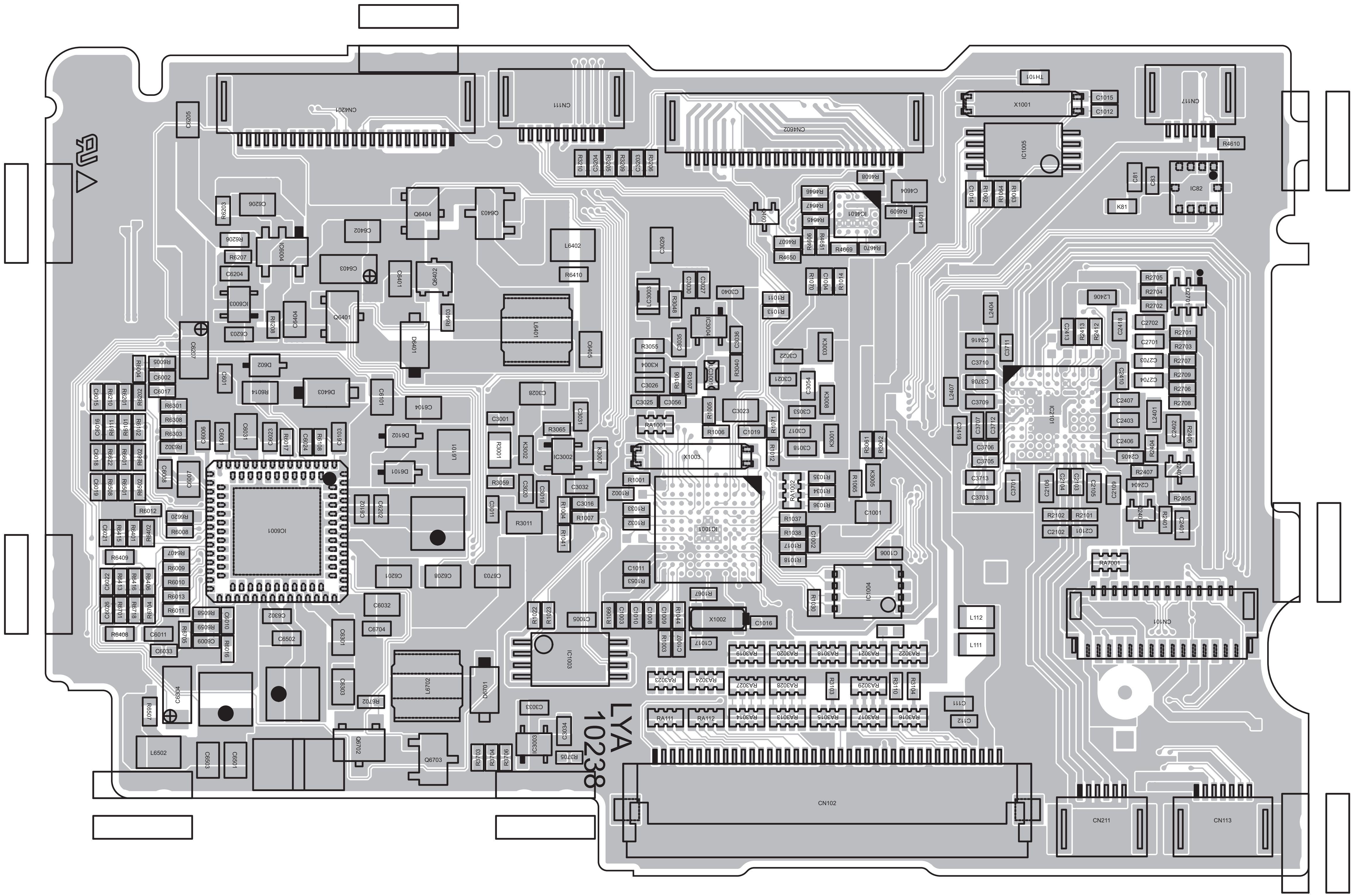


yf376_y40276001a_0207_ver0.1

<MAIN CIRCUIT BOARD>

(Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade))

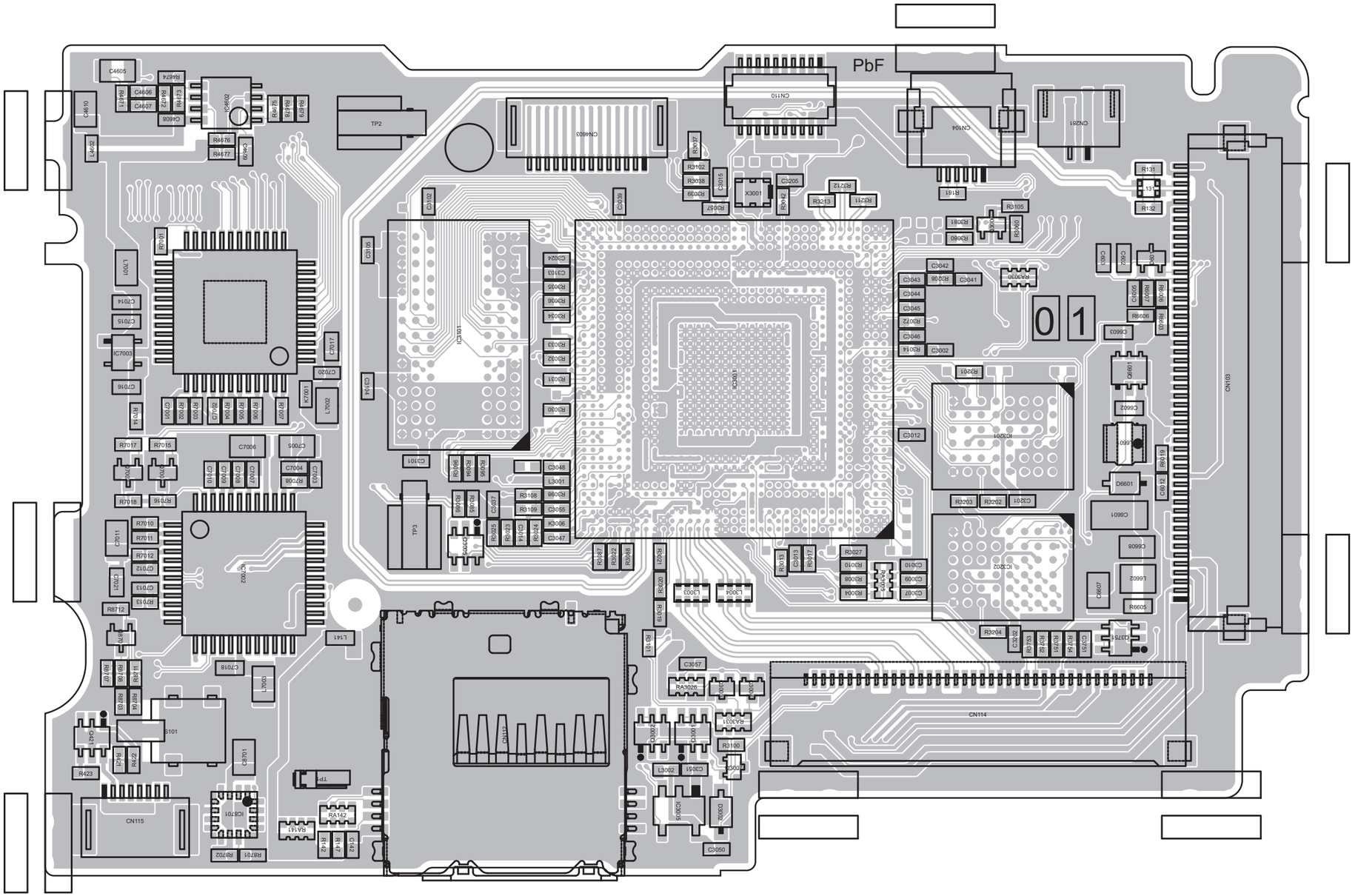
<01>MAIN
LYB10238-001B
FOIL SIDE(B)



<MAIN CIRCUIT BOARD>

(Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade))

<01>MAIN
LYB10238-001B
COMPONENT SIDE(A)



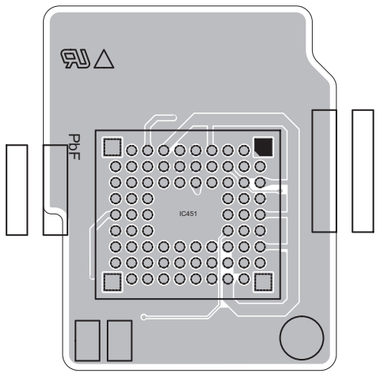
<CMOS CIRCUIT BOARD>

(Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade))

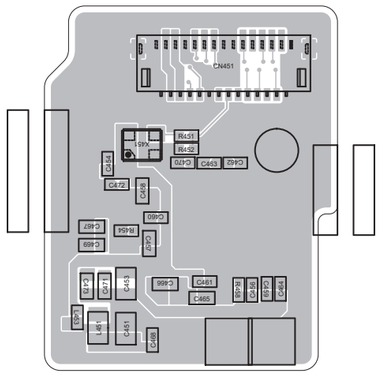
<02>CMOS
LYB20083-001A

The Circuit board is only for reference. Avoid replacing individual parts.
Replace the entire unit only. When CMOS BOARD ASSEMBLY needs replacement,
replace the CMOS FRM ASSEMBLY in whole because it cannot be replaced alone.

FOIL SIDE(B)



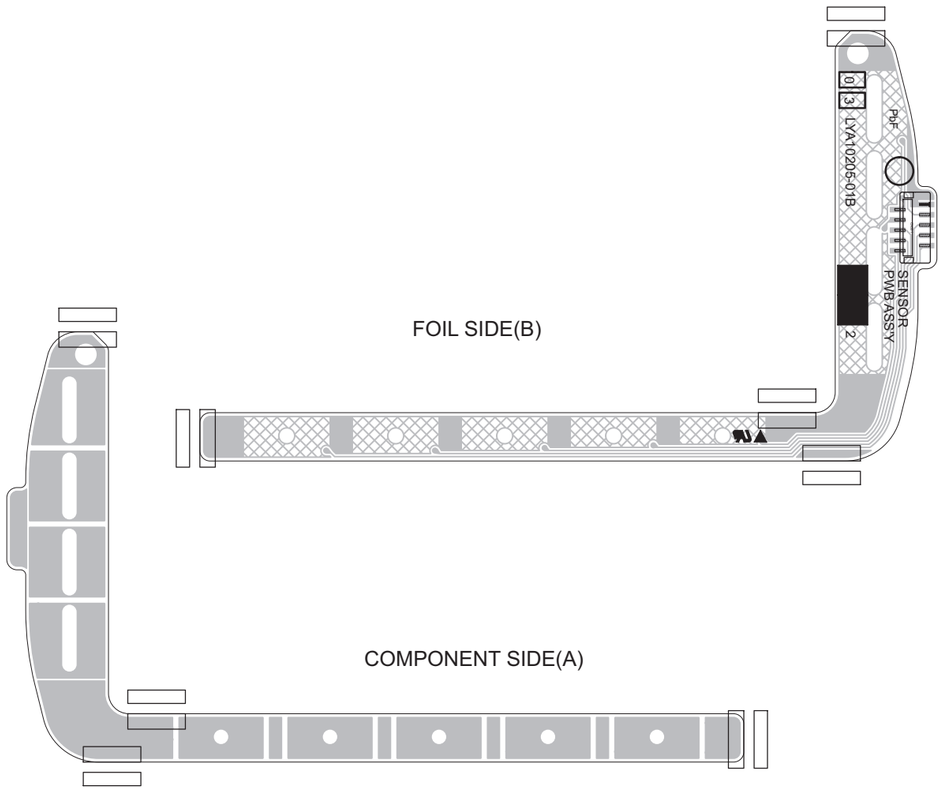
COMPONENT SIDE(A)



<SENSOR CIRCUIT BOARD>

(Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade))

<03>SENSOR
LYB10205-001B



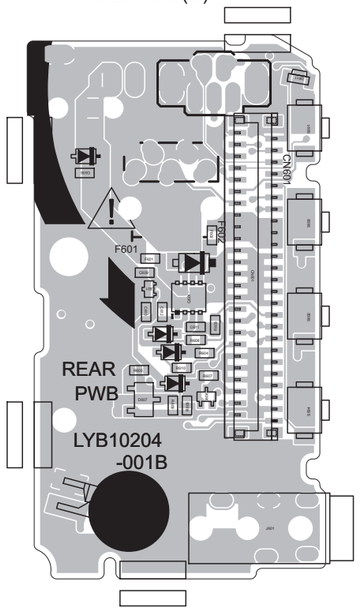
<REAR CIRCUIT BOARD>

(Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade))

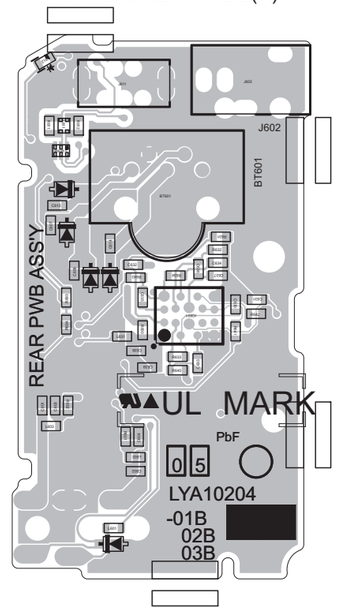
<05>REAR
LYB10204-001B

CAUTION :
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S).
ATTENTION :
POUR UNE PROTECTION PERMANENTE CONTRE LES RISQUE D'INCENDE,
REMPLACER LES FUSIBLES PAR UNAAUTRE DE MEME TYPE ET DE MEME TENSION.

FOIL SIDE(B)



COMPONENT SIDE(A)

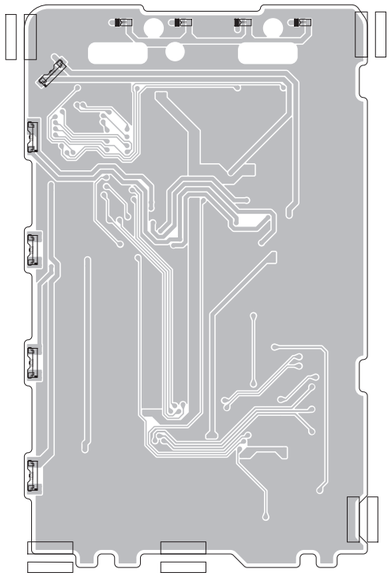


<MONITOR CIRCUIT BOARD>

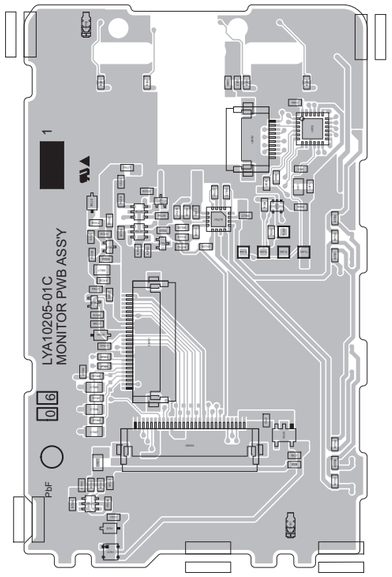
(Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade))

<06>MONITOR
LYB10205-001B

FOIL SIDE(B)



COMPONENT SIDE(A)

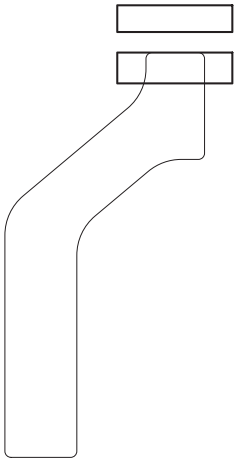


<WB CIRCUIT BOARD>

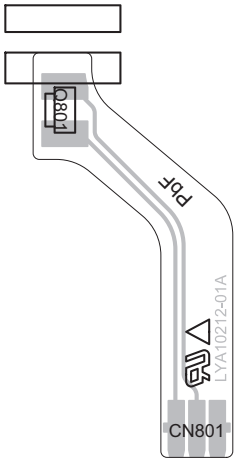
(Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade))

<07>WB
LYB10212-001A

FOIL SIDE(B)



COMPONENT SIDE(A)

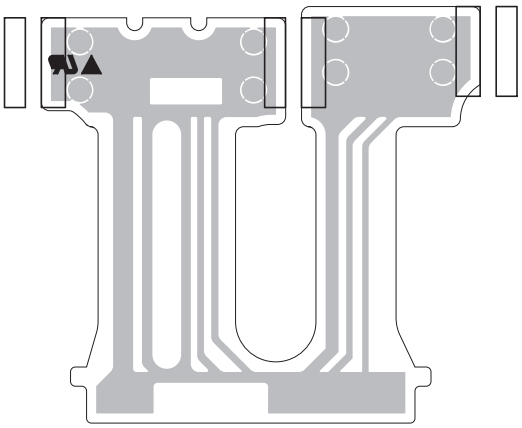


<HDMI CIRCUIT BOARD>

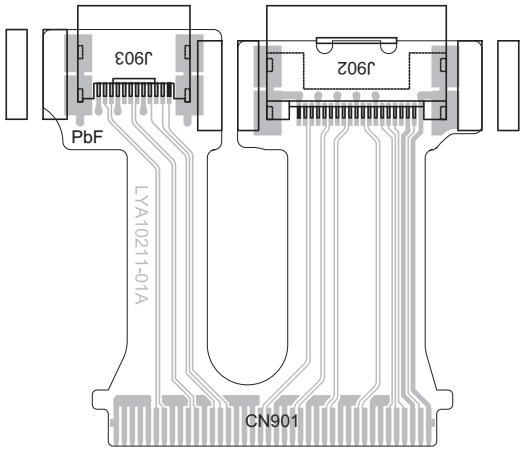
(Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade))

<08>HDMI
LYB10211-001A

FOIL SIDE(B)



COMPONENT SIDE(A)



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