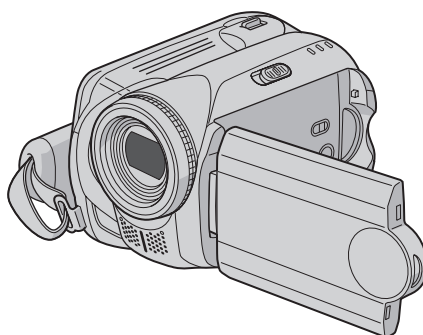


JVC

SERVICE MANUAL

HARD DISK CAMCORDER

GZ-MG27US, GZ-MG37US, GZ-MG39UC



GZ-MG27USM [M6E335],
GZ-MG37USM, GZ-MG39UCM [M6E337]

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

TABLE OF CONTENTS

1	PRECAUTIONS	1-3
2	SPECIFIC SERVICE INSTRUCTIONS	1-5
3	DISASSEMBLY	1-6
4	ADJUSTMENT	1-14
5	TROUBLE SHOOTING	1-17

SPECIFICATION

■Camcorder

For General	Power supply		DC 11.0 V (Using AC Adapter) DC 7.2 V (Using battery pack)
	Power consumption		Approx. 3.9 (4.1)* W * When using the LED light Approx. 6.5 W (Maximum; when charging a battery)
	Dimensions (W × H × D)		68 mm × 69 mm × 109 mm (2-11/16" × 2-3/4" × 4-5/16")
	Weight		Approx. 340 g (0.75 lbs) (without battery, lens cap and strap) Approx. 400 g (0.89 lbs) (incl. battery, lens cap and strap)
	Operating temperature		0°C to 40°C (32°F to 104°F)
	Operating humidity		35% to 80%
	Storage temperature		-20°C to 50°C (-4°F to 122°F)
	Pickup		1/6" (680,000 pixels) CCD
	Lens		F 2.0 to 4.5, f = 2.3 mm to 73.6 mm, 32:1 power zoom lens
	Filter diameter		Ø30.5 mm
	LCD monitor		2.7" diagonally measured, LCD panel/TFT active matrix system
	Speaker		Monaural
	Flash		Within 1.5 m (4.9 ft) (recommended shooting distance)
For Video/Audio	Format		SD-VIDEO
	Recording/Playback format	Video	MPEG-2
		Audio	Dolby Digital (2 ch)
	Signal format		NTSC standard
	Recording mode (video)		ULTRA FINE: 720 × 480 pixels, 8.5 Mbps (VBR) FINE: 720 × 480 pixels, 5.5 Mbps (VBR) NORMAL: 720 × 480 pixels, 4.2 Mbps (VBR) ECONOMY: 352 × 240 pixels, 1.5 Mbps (VBR)
Recording mode (audio)		ULTRA FINE: 48 kHz, 384 kbps FINE: 48 kHz, 384 kbps NORMAL: 48 kHz, 256 kbps ECONOMY: 48 kHz, 128 kbps	
For Still image	Format		JPEG
	Image size		One mode (640 × 480)
	Picture quality		2 modes (FINE/STANDARD)
For Connectors	AV	S-Video output	Y:1.0 V (p-p), 75Ω, analog, C:0.29V (p-p), 75Ω, analog
		Video output	1.0 V (p-p), 75 kΩ, analog
		Audio output	300 mV (rms), 1 kΩ, analog, stereo
	USB		Mini USB type A and type B, USB 2.0 compliant

■AC Adapter

Power requirement	AC 110 V to 240 V, 50 Hz/60 Hz
Output	DC 11 V, 1 A

■Remote Control

Power supply	DC 3 V
Battery life	Approx. 1 year (depending on the frequency of use)
Operating distance	Within 5 m (16.4 ft)
Operating temperature	0°C to 40°C (32°F to 104°F)
Dimensions (W × H × D)	45 mm × 13 mm × 105 mm (1-13/16" × 1-1/2" × 4-3/16")
Weight	Approx. 40 g (0.09 lbs) (incl. battery)

Design and specifications subject to change without notice.

SECTION 1 PRECAUTIONS

1.1 SAFTY 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 Δ 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.

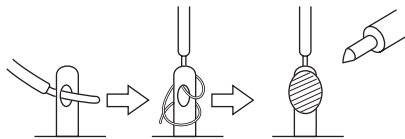


Fig.1-1-1

- (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.

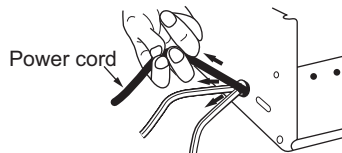


Fig.1-1-2

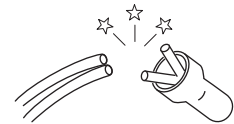
- (10) Also check areas surrounding repaired locations.
- (11) Products using cathode ray tubes (CRTs) In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray

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 connector In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer 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).



cut close to connector

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.

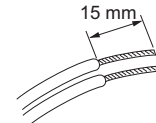


Fig.1-1-4

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

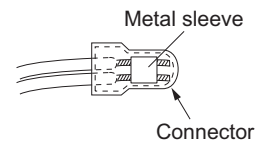


Fig.1-1-5

- 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.

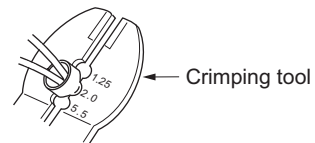


Fig.1-1-6

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

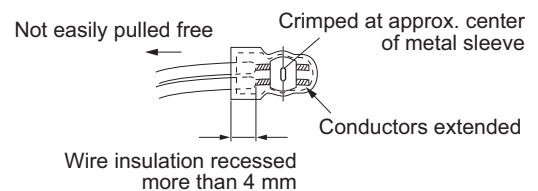


Fig.1-1-7

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.

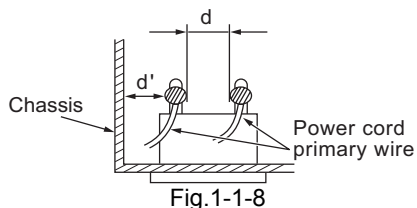


Fig.1-1-8

(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.

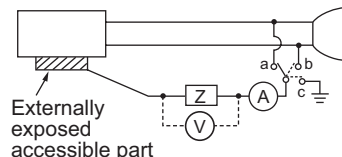
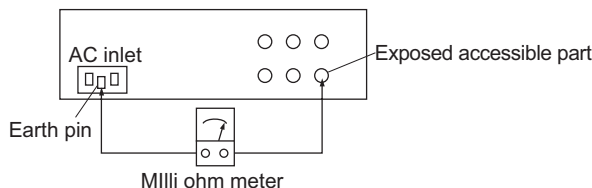


Fig.1-1-9

(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 milli ohm 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	$Z \leq 0.1 \text{ ohm}$
Europe & Australia	$Z \leq 0.5 \text{ ohm}$

Fig.1-1-10

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

Fig.1-1-11

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	$1 \text{ k}\Omega$	$i \leq 1 \text{ mA rms}$	Exposed accessible parts
110 to 130 V	USA & Canada	$0.15 \mu\text{F}$ and $1.5 \text{ k}\Omega$	$i \leq 0.5 \text{ mA rms}$	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	$2 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Antenna earth terminals
		$50 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	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

The following table indicate main different points between models GZ-MG27US ,GZ-MG37US and GZ-MG39UC.

MODEL NAME	GZ-MG27US	GZ-MG37US	GZ-MG39UC
HDD(BUILT-IN)	20GB	30GB	30GB
BATTERY PACK	BN-VF707US	BN-VF707US	BN-VF714US
OTHER ACC	NO	NO	Lens protector

SECTION 3 DISASSEMBLY

3.1 BEFORE ASSEMBLY AND DISASSEMBLY

3.1.1 Precautions

- Be sure to disconnect the power supply unit prior to mounting and soldering of parts.
- Prior to removing a component part that needs to disconnect its connector(s) and its screw(s), first disconnect the wire(s) from the connector(s), and then remove the screw(s).
- When connecting/disconnecting wires, pay enough attention not to damage the connectors.
- When inserting the flat wire to the connector, pay attention to the direction of the flat wire.
- Be careful in removing the parts to which some spacer or shield is attached for reinforcement or insulation.
- When replacing chip parts (especially IC parts), first remove the solder completely to prevent peeling of the pattern.
- Tighten screws properly during the procedures. Unless otherwise specified, tighten screws at a torque of 0.098N·m (1.0kgf·cm). However, as this is a required value at the time of production, use the value as a measuring stick when proceeding repair services. (See "SERVICE NOTE" as for tightening torque.)

3.1.2 Destination of connectors

Two kinds of double-arrows in connection tables respectively show kinds of connector/wires.

↔ : Flat wire ↔ : Wire ↔ : Board to board (B-B)
 : The connector of the side to remove

CONN. No.	CONNECTOR		PIN No.
CN2a	MAIN CN101	↔ MONI BW CN761	40
CN2b	MAIN CN103	↔ MINI BW CN762	10

3.1.3 Disconnection of connectors (Wires)

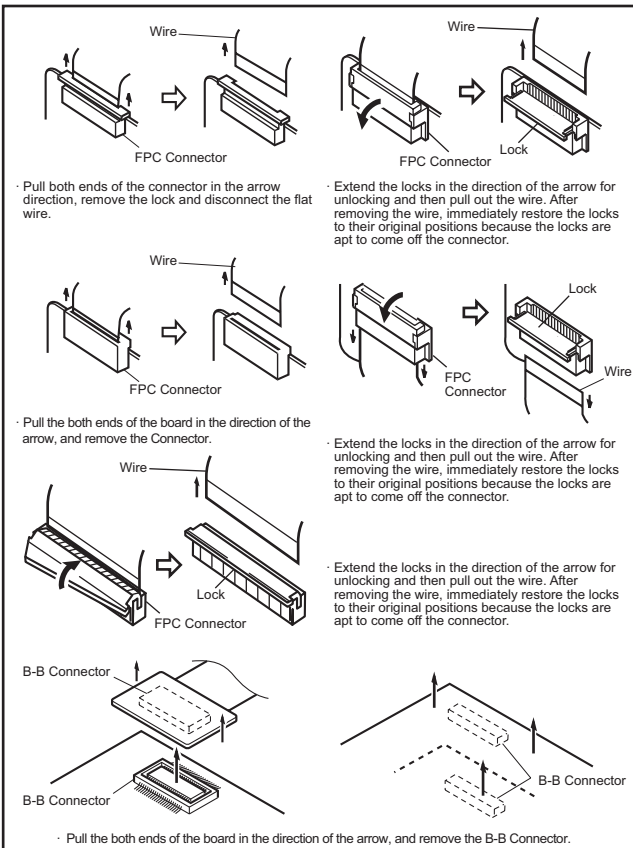


Fig.3-1-1

3.1.4 Tools required for disassembly and assembly

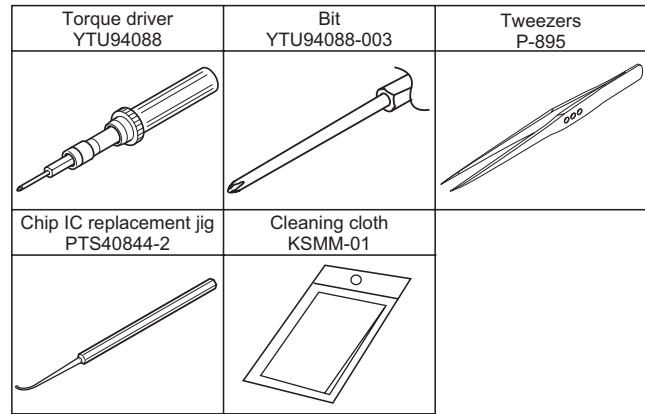


Fig.3-1-2

- **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 replacement of IC.
- **Cleaning cloth**
Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

3.2 ASSEMBLY AND DISASSEMBLY OF MAIN PARTS

3.2.1 Assembly and disassembly

When reassembling, perform the step(s) in reverse order.

STEP No.	PART	Fig. No.	POINT	NOTE
[1]	TOP COVER ASSY	C1	4(S1a), 3(L1a), CN1a	-
[2]	UPPER ASSY (Inc. VF ASSY, SPEAKER/MONITOR)	C2-1	(S2a), 2(S2b), 3(S2c) 2(SD1a), L2, CN2a, b	-
[8]	E.VF UNIT(B/W)	C2-2	2(S8), L8, CN8a	NOTE 8
(*1)	(*2)	(*3)	(*4)	(*5)

(*1) Order of steps in Procedure

When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.

(*2) Part to be removed or installed.

(*3) Fig. No. showing Procedure or Part Location.

(*4) Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.

S = Screw L = Lock, Release, Hook
SD = Solder CN = Connector

[Example]

- 4 (S1a) = Remove 4 S1a screws.
 - 3 (L1a) = Disengage 3 L1a hooks.
 - 2 (SD1a) = Unsolder 2 SD1a points.
 - CN1a = Remove a CN1a connector.
- (*5) Adjustment information for installation.

3.2.2 ASSEMBLY/DISASSEMBLY OF CABINET PARTS AND ELECTRICAL PARTS

● Disassembly procedure

STEP No.	PART NAME	Fig. No.	POINT	NOTE
[1]	BOTTOM COVER ASSY	CA1	3(S1),3(L1)	-
[2]	HDD COVER ASSY	FA1	GRIP BELT,2(S2), JACK COVER(DC),L2a,b,c,d	NOTE2a,b,c,d
[3]	HDD	FA2	CN3	NOTE3a,b
[4]	HDD CASE ASSY	FA3	3(S4a),2(S4b)	-
[5]	TOP COVER(ZOOM)	FA4	CN5,JACK COVER(REAR),S5,L5a,b	NOTE5
[6]	ZOOM UNIT		SHIELD(ZOOM),2(S6),2(L6)	NOTE6
[7]	REAR BOARD ASSY	FA5	4(S7),2(L7a),JACK COVER(REAR), CN7a,b,L7b,REAR UNIT	NOTE7
[8]	MONI. LOCK CASE ASSY	FA6	2(S8),2(L8)	-
[9]	FRONT COVER ASSY	FA7	2(S9a),S9b,CN9	-
[10]	MIC	FA8	2(S10),L10,BKT(MIC)	NOTE10
[11]	UPPER ASSY	FA9	S11,L11a,SHIELD(FRAME), 4(S11),L11b,CN11	-
[12]	MONITOR ASSY	UA1	S12a,CN12,2(S12b),2(L12)	NOTE12a,b
[13]	OPE BOARD ASSY	UA2	S13,INTER RUPTER, 3(S13),CN13,L13	NOTE13a,b
[14]	TOP COVER(U) ASSY	UA3	2(S14),2(L14)	-
[15]	POWER SW ASSY		2(S15),2(L15)	-
[16]	SPEAKER	UA4	4(S16),L16a,b,BKT(UPPER)	NOTE16
[17]	MAIN BOARD ASSY	FA10	CN17a,b,2(S17)	NOTE17
[18]	OP BLOCK ASSY	FA11	3(S18)	NOTE18

NOTE2a:

During the procedure, leave the GRIP BELT removed from the hook.

NOTE2b:

When removing the HDD COVER ASSY, leave the JACK COVER (DC) released.

NOTE2c:

During the procedure, be careful not to damage the tabs.

NOTE2d:

When removing the HDD COVER ASSY, be careful in handling as the HDD may come off.

NOTE3a:

During the procedure, be careful in handling the HDD. Make sure not to give any shock to the HDD.

NOTE3b:

When attaching the HDD, check the positions of the marks, and be careful with the GEL lift.

NOTE5:

The screw (No.11) is located under the JACK COVER (REAR).

NOTE6:

Do not disassemble the ZOOM UNIT if not needed as the SHIELD (ZOOM) is attached to the terminals.

NOTE7:

When removing the REAR UNIT, be careful in handling as the JACK COVER (REAR) comes off together.

NOTE10:

When attaching the MIC, be careful with the MIC wiring.

NOTE12a:

Remove the screw (No.30), which tightens up the FPC, before connecting/ disconnecting the FPC to/ from the connector.

NOTE12b:

Refer to 3.2.3 ASSEMBLY/DISASSEMBLY OF [12] MONITOR ASSEMBLY for the disassembly of the MONITOR ASSY.

NOTE13a:

When attaching the two switches (POWER, MODE), be careful with the attachment locations. Attach the levers and switches fixed to one direction as they can be fixed (except the MODE switch lever). After the attachment, check the operation by moving the switch levers.

NOTE13b:

When attaching the SPEAKER WIRE, be careful in the wiring and not to catch the WIRE in between.

NOTE16:

When attaching the SPEAKER, be careful with the attachment location. Attach the OPE BOARD ASSY first, and then follow the figure for the SPEAKER wiring.

NOTE17:

When attaching the MAIN BOARD ASSY, make sure to insert the corner of the MAIN BOARD ASSY into the slit of the FRAME ASSY.

NOTE18:

Refer to 3.2.4 ASSEMBLY/DISASSEMBLY OF [18] OP BLOCK ASSEMBLY/CCD BOARD ASSEMBLY.

● Destination of connectors

CN. No.	CONNECTOR				PIN No.
CN3	HDD	-	↔	MAIN CN102	40
CN5	MAIN	CN104	↔	ZOOM UNIT -	6
CN7a	MAIN	CN103	↔	REAR CN6001	53
CN7b	REAR	CN6002	↔	TRIG SW -	6
CN9	MAIN	CN107	↔	MIC -	4
CN11	MAIN	CN101	↔	OPERATION CN401	50
CN12	OPERATION	CN402	↔	MONI-BL CN7601,7602	24/12,12
CN13	OPERATION	CN403	↔	SPEAKER -	2
CN17a	MAIN	CN105	↔	CCD CN5001	24
CN17b	MAIN	CN106	↔	OP BLOCK -	26

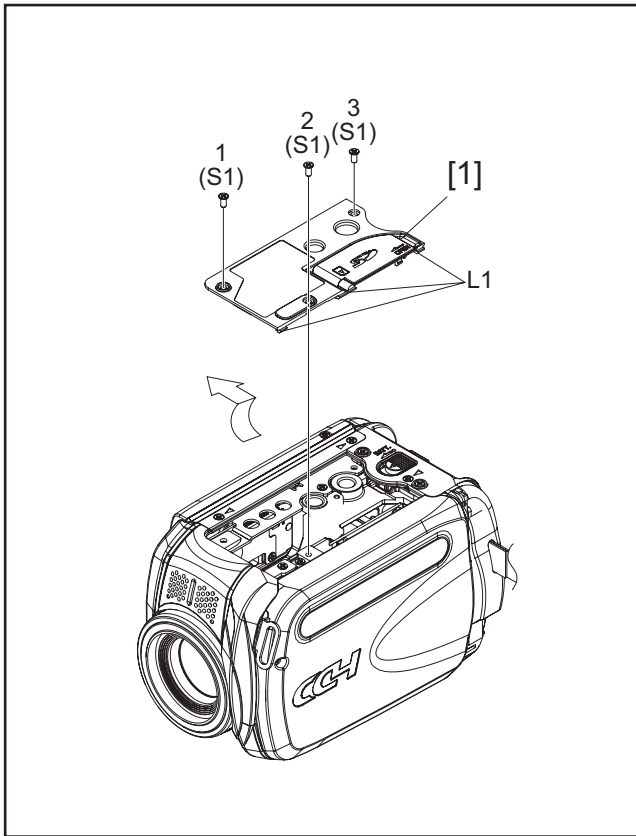


Fig.CA1

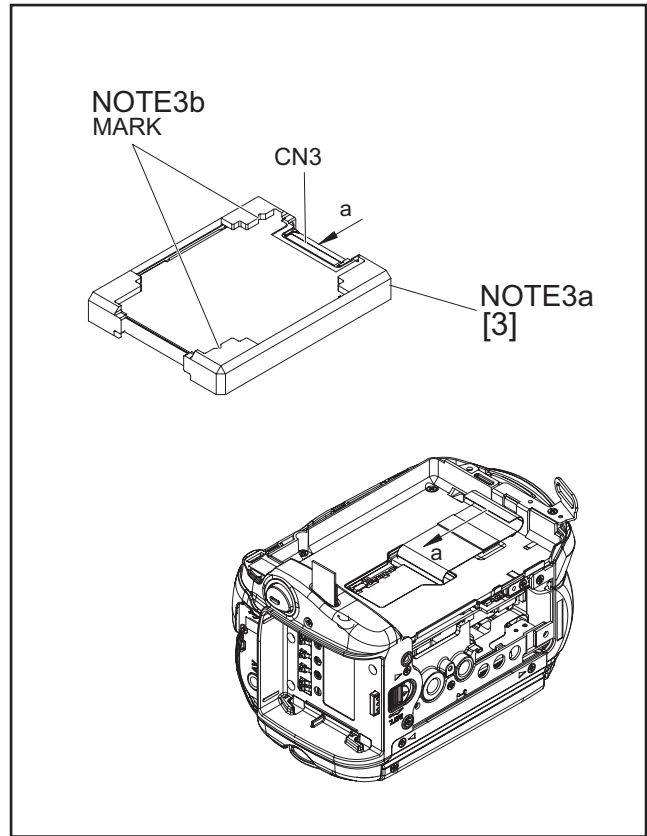


Fig.FA2

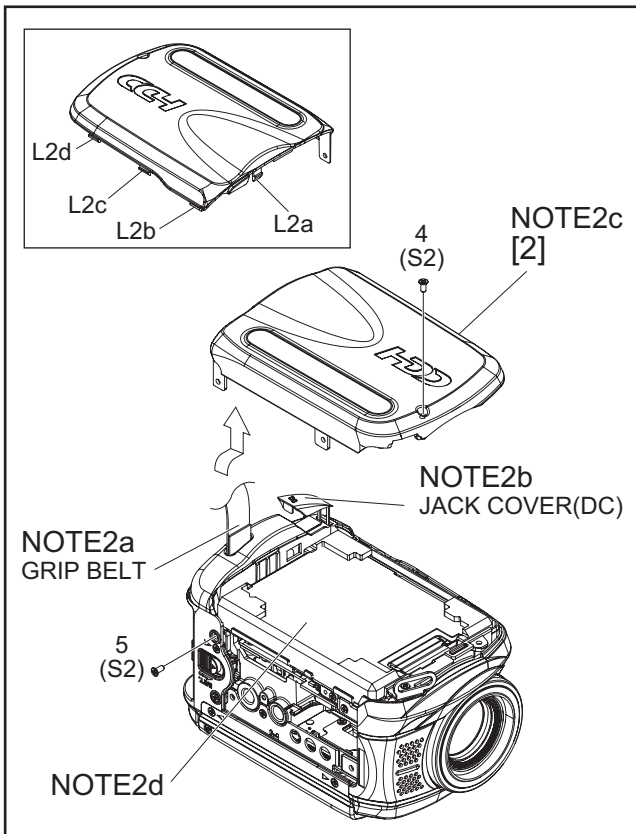


Fig.FA1

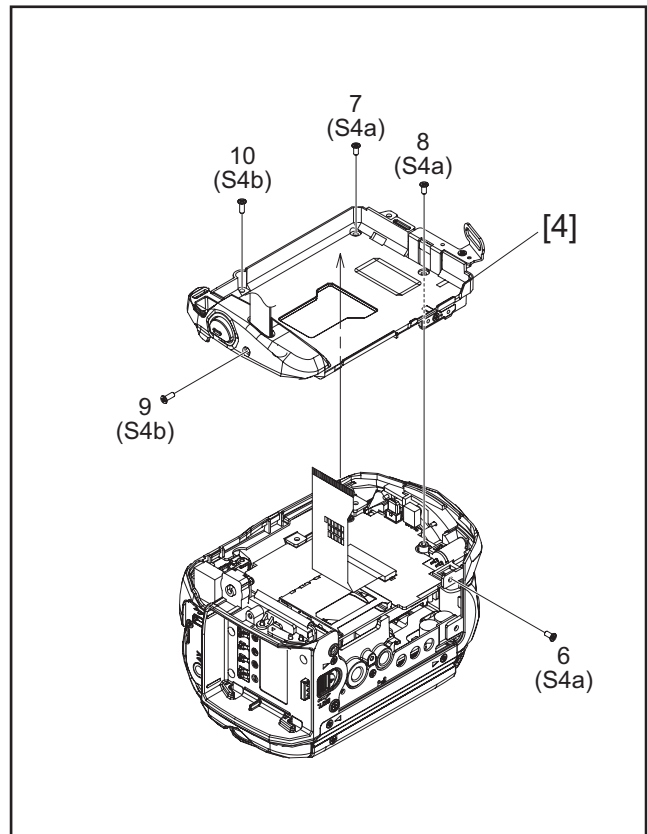
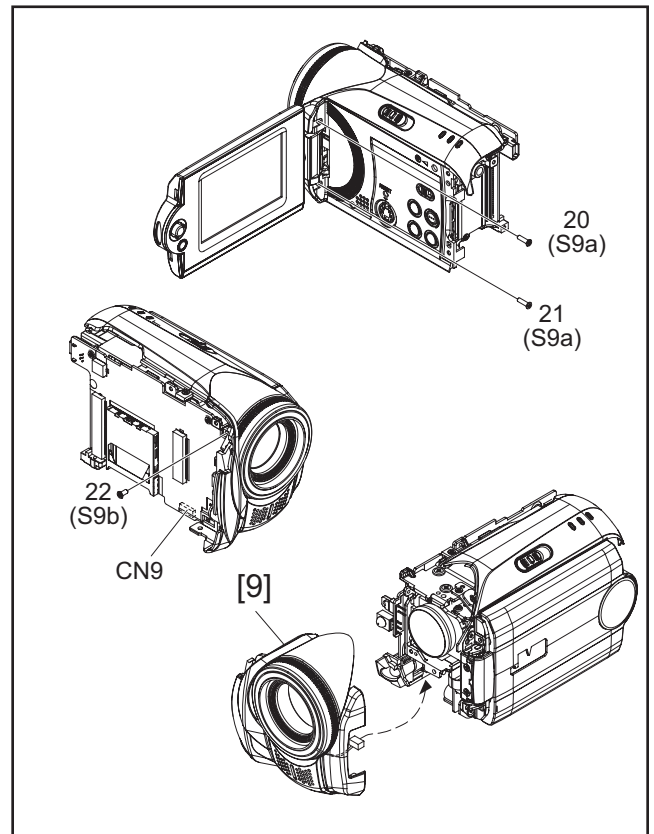
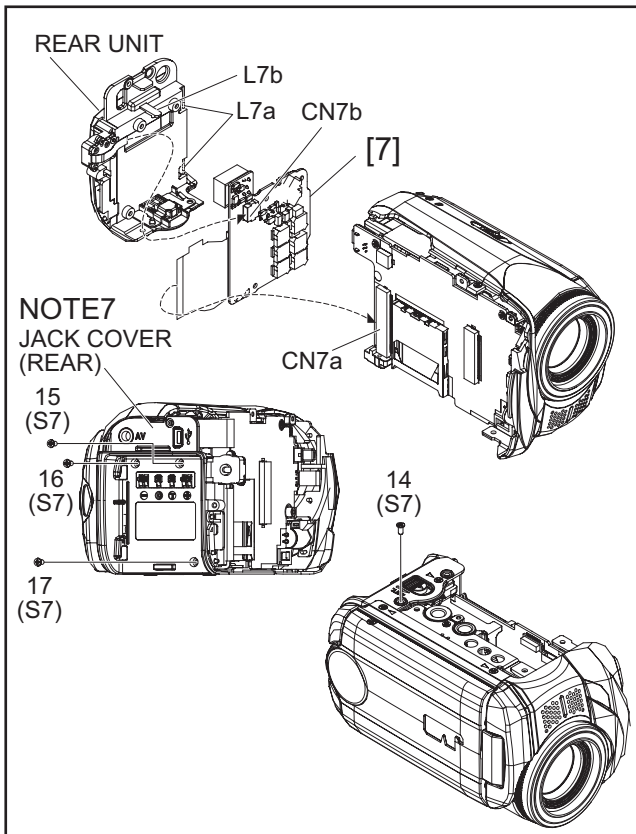
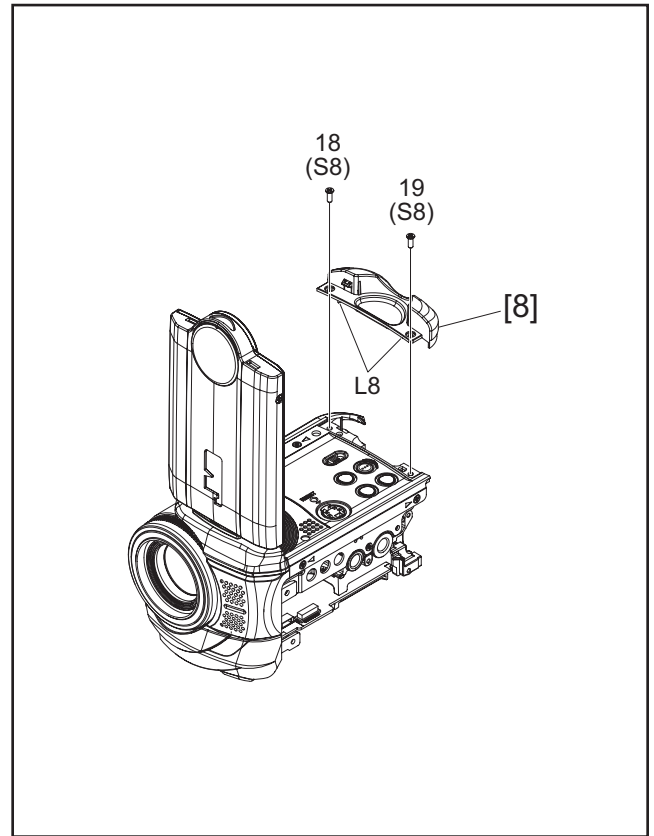
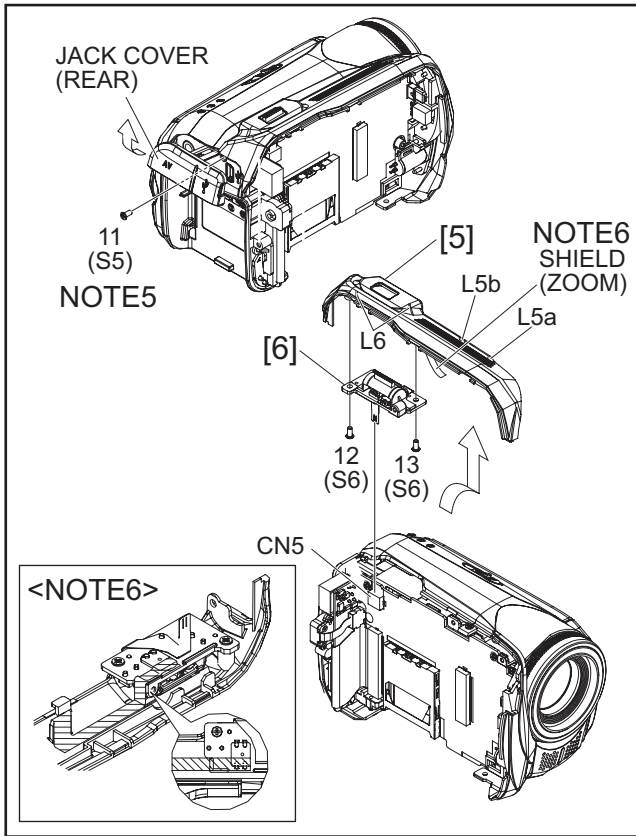


Fig.FA3



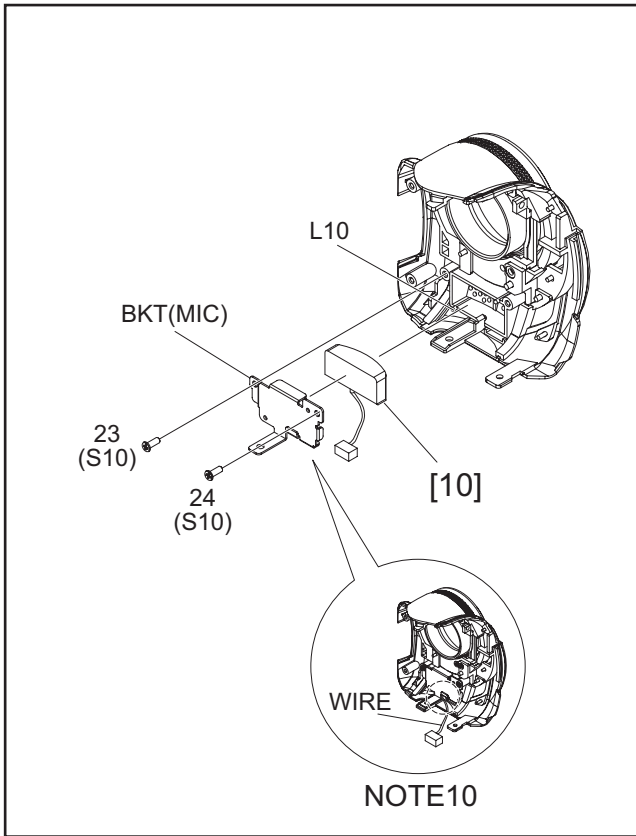


Fig.FA8

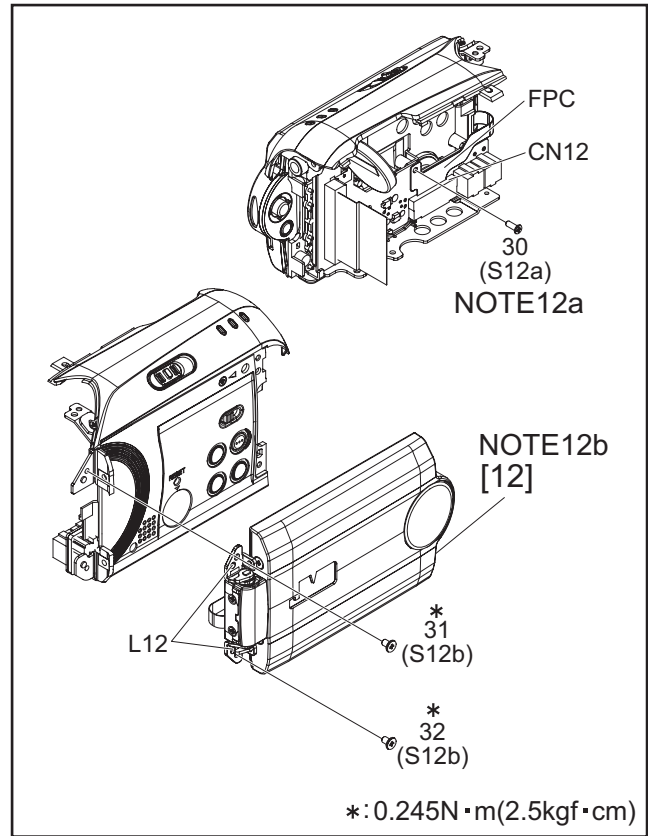


Fig.UA1

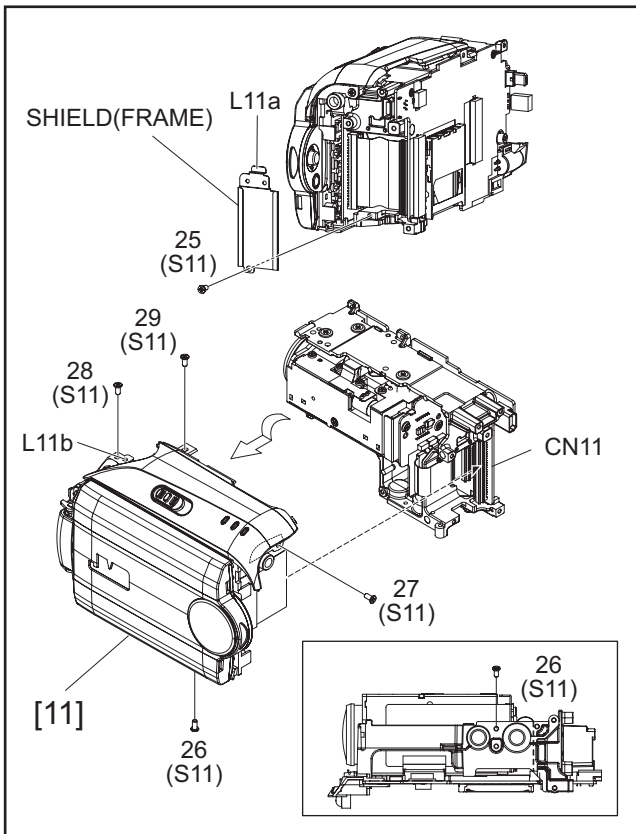


Fig.FA9

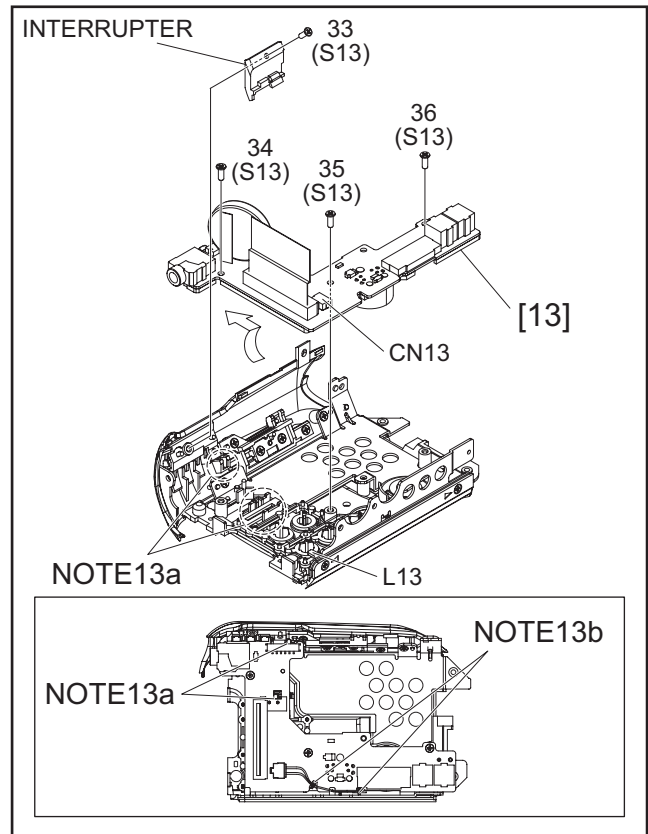


Fig.UA2

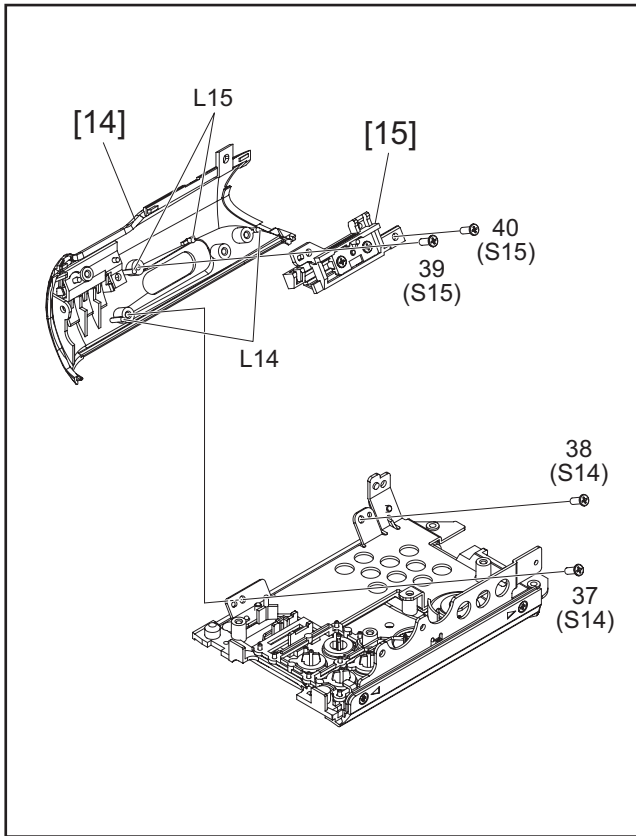


Fig.UA3

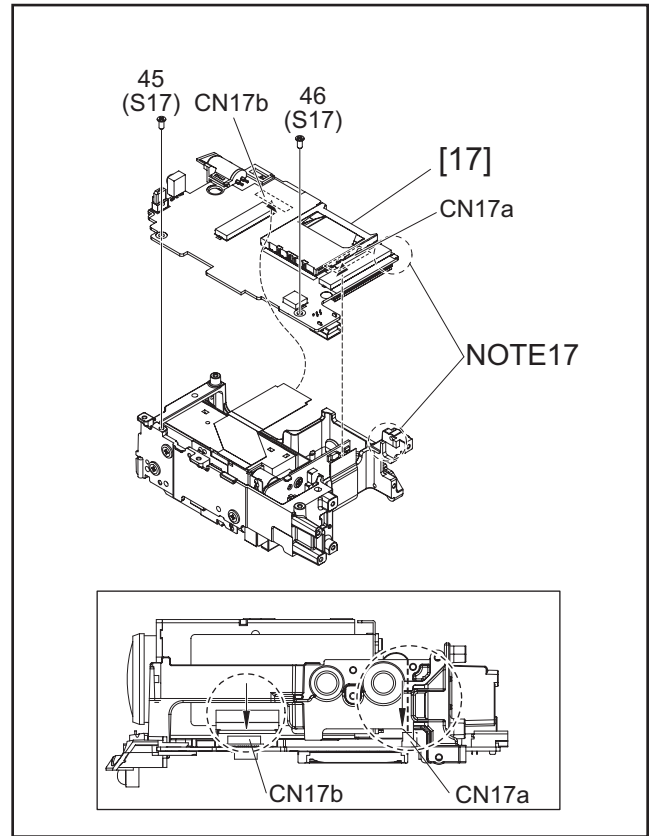


Fig.FA10

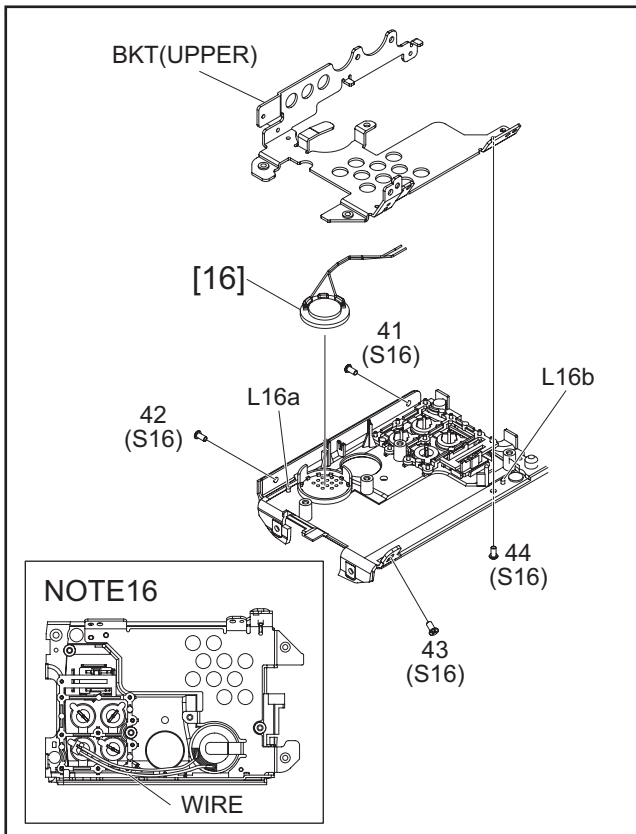


Fig.UA4

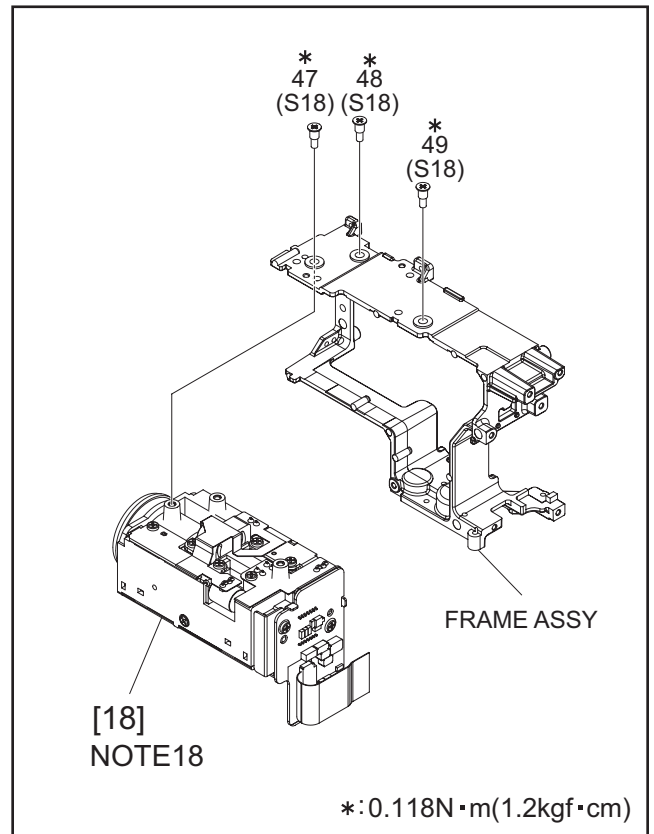


Fig.FA11

3.2.3 ASSEMBLY/DISASSEMBLY OF [12] MONITOR ASSEMBLY

●CAUTIONS

- (1) Remove the MONITOR ASSEMBLY from the UPPER ASSEMBLY first, as they are removed together in main parts disassembly, and then proceed to the disassembly procedure.
- (2) During the procedure, be careful in handling the LCD MODULE and other parts. Pay special attention not to damage or soil the monitor screen. If fingerprints are left on the screen, wipe them with clean chamois leather or a cleaning cloth.

●Removing MONITOR ASSEMBLY

- (1) Turn the HINGE UNIT ASSEMBLY 90°, and remove the three screws (1-3). Remove the MONITOR COVER ASSEMBLY by removing the six hooks (L12a-f).
- (2) Pull out the U/D SWITCH BOARD from the MONITOR CASE ASSEMBLY.

NOTE12a:

During the procedure, be careful in handling the FPC.

- (3) Release the lock of the connector (CN12a,b), and remove the HINGE UNIT by lifting it up.
- (4) Release the lock of the connector (CN12c,d), and pull out the FPC.

- (5) Remove the two screws (4,5), and Remove the MONI-BL BOARD ASSEMBLY by removing the hook (L12h).
- (6) Remove the BACK LIGHT.
- (7) Remove the LCD MODULE.
- (8) Remove the LCD BKT.

●Removing HINGE UNIT ASSEMBLY

- (1) Remove the two screws (6,7), and then remove the HINGE COVER (U,L).

NOTE12b:

During the procedure, be careful in handling the MAGNET and be careful with its attachment direction. Make sure to attach the MAGNET with its mark facing inward.

NOTE12c:

During the procedure, be careful in handling the FPC.

NOTE12d:

The FPC, with its connection to the MONITOR BOARD ASSEMBLY facing inward, is rolled around the axis (shaft) of the HINGE ASSEMBLY rotation 2.5 rounds (2.5times).

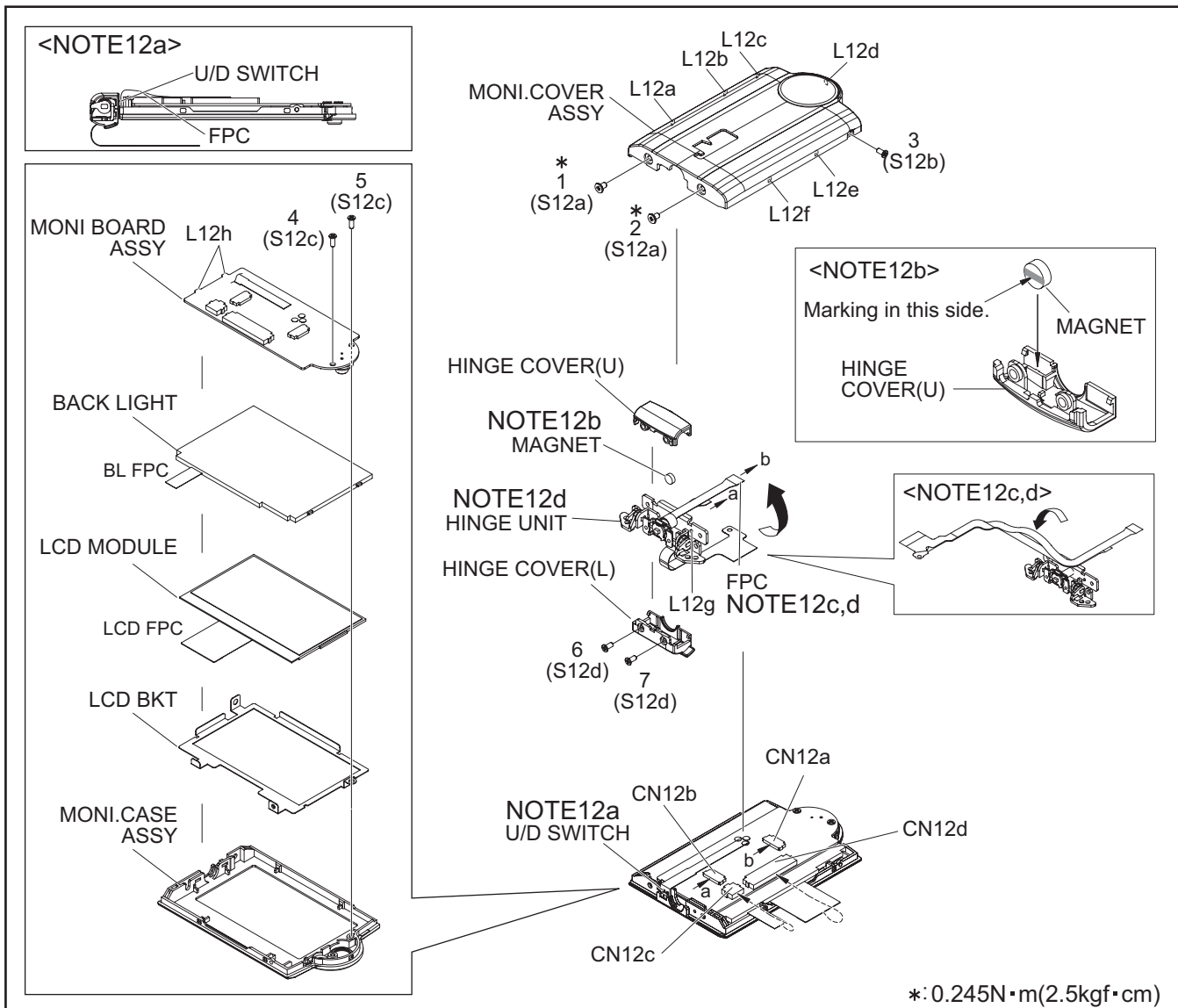


Fig.3-2-3

3.2.4 ASSEMBLY/DISASSEMBLY OF [18] OP BLOCK ASSEMBLY/CCD BOARD ASSEMBLY

●Precautions

- (1) Take care in handling the CCD IMAGE SENSOR, OPTICAL LPF and lens components when performing maintenance etc., especially with regard to surface contamination, attached dust or scratching. If fingerprints are present on the surface they should be wiped away using either a silicon paper, clean chamois or the cleaning cloth.
- (2) The CCD IMAGE SENSOR may have been shipped with a protective sheet attached to the transmitting glass. When replacing the CCD IMAGE SENSOR, do not peel off this sheet from the new part until immediately before it is mounted in the OP BLOCK ASSEMBLY.
- (3) As the attachment direction of the OPTICAL LPF is important, be careful when removing it. Make sure to reattach the OP LPF in its original direction.

●Disassembly of OP BLOCK ASSEMBLY / CCD BOARD ASSEMBLY

- (1) Unsolder the fourteen soldered points (SD18a) of the CCD BOARD ASSEMBLY.
- (2) Remove the two screws (1, 2), and then remove the CCD BOARD ASSEMBLY, SHIELD CCD and the CCD BASE ASSEMBLY.

NOTE18a:

Be careful in handling as there are only the OPTICAL LPF and the SHEET stored inside the OP BLOCK ASSY when the CCD BASE ASSY is removed.

NOTE18b:

Replace the CCD IMAGE SENSOR as a CCD BASE ASSEMBLY, not as a single part replacement.

●Assembly of OP BLOCK ASSEMBLY / CCD BOARD ASSEMBLY

- (1) Set the OPTICAL LPF first, and then the SHEET to the OP BLOCK ASSEMBLY.

NOTE18c:

Pay careful attention to the orientation of the OPTICAL LPF.

- (2) Attach the CCD BASE ASSEMBLY first then the SHIELD CCD, CCD BOARD ASSEMBLY so that the SHEET stays in place, and tighten with the two screws (1, 2).
- (3) Solder the 14 points (SD18a) on the CCD BOARD ASSEMBLY.

●Replacement of service repair parts

The service repair parts for the OP BLOCK ASSEMBLY are as listed below. Take special care not to disconnect any of the FPC wires or cause any damage due to soldering (excessive heating).

- (1) FOCUS MOTOR UNIT
- (2) ZOOM MOTOR UNIT
- (3) AUTO IRIS UNIT

NOTE18d:

When replacing the FOCUS MOTOR UNIT or the ZOOM MOTOR UNIT, solder the FPC at a space of about 0.5 mm above the terminal pin.

NOTE 18e:

The AUTO IRIS UNIT includes the FPC ASSEMBLY and two sensors.

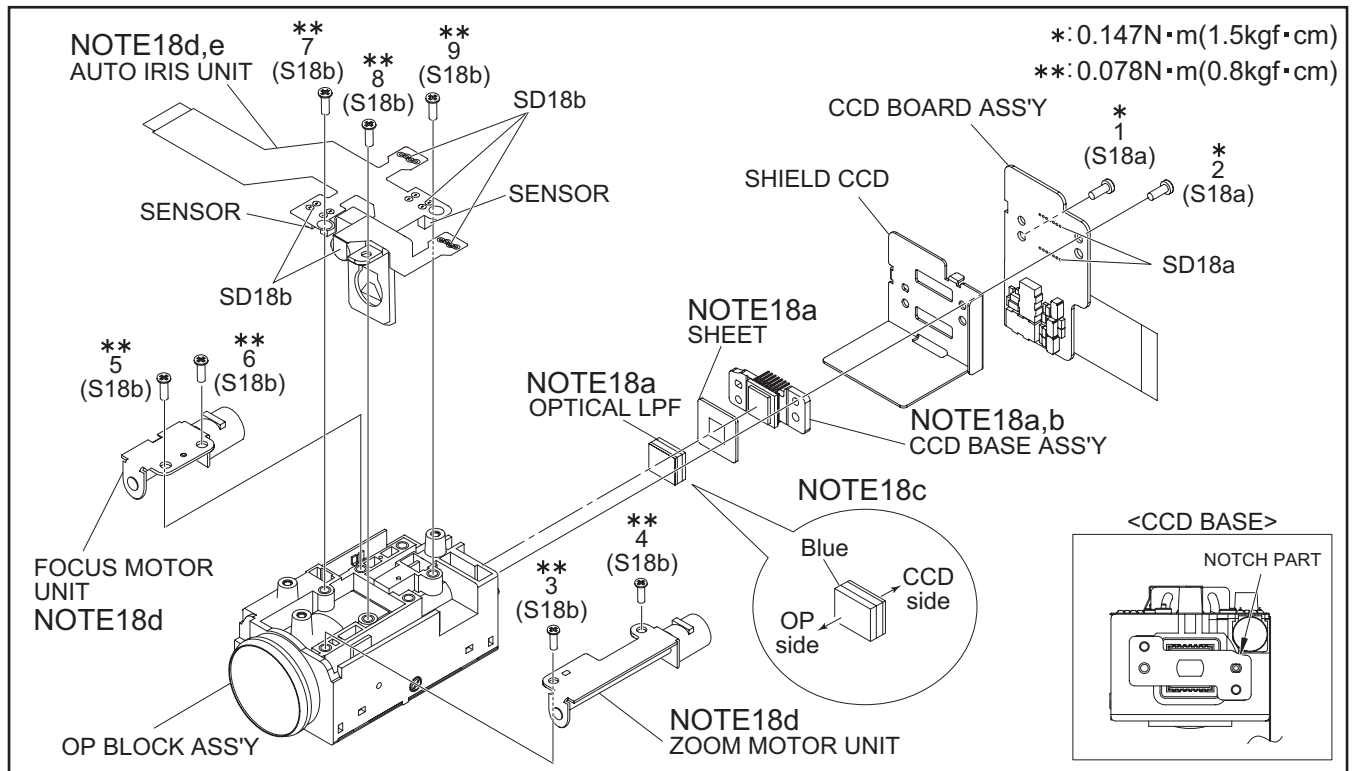


Fig.3-2-4

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
- EEPROM (IC4502 of MAIN board)

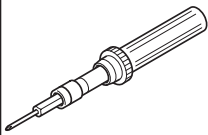
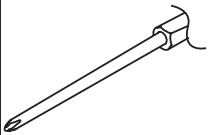
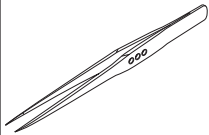
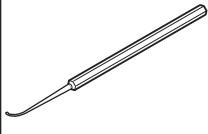
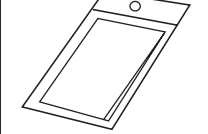
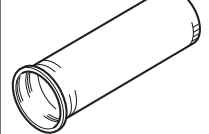
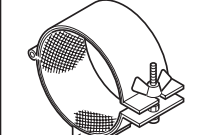
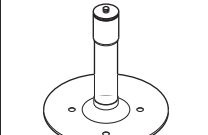
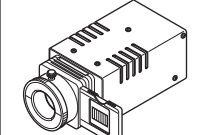
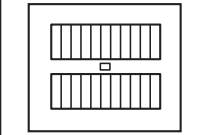
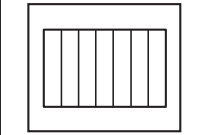
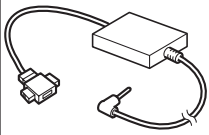
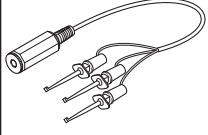
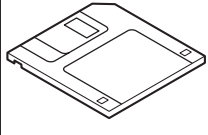
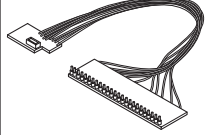
In the event of malfunction with electrical circuits, first find a defective portion with the aid of proper test instruments as shown in the following electrical adjustment procedure, and then commence necessary repair/ replacement/adjustment.

- 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 YTU92001B
		
INF Adjustment Lens Holder YTU94087	Mini Stand YTU93108	Light box Assembly YTU93096A
		
Gray Scale Chart YTU94133A	Color Bar Chart YTU94133C	PC Cable QAM0099-002
		
Communication Cable YTU93107B	Service Support System YTU94057-94	Jig Connector Cable YTU93106A
		

- **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.

- **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.

- **Gray scale chart**

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.

- **Color bar chart**

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.

- **PC cable**

To be used to connect the Videocamera and a personal computer with each other when a personal computer issued for adjustment.

- **Communication cable**

Connect the Communication cable between the PC cable and Jig connector cable when performing a PC adjustment.

- **Service support system**

To be used for adjustment with a personal computer. Software can be downloaded also from JS-net.

- **Jig connector cable**

Connected to JIG CONNECTOR of the main board and used for electrical adjustment, etc.

4.2 JIG CONNECTOR CABLE CONNECTION

■ Connection procedure

NOTE

Be sure to turn the power "OFF", when connecting the JIG CONNECTOR CABLE.

If the JIG CONNECTOR CABLE is connected with the power "ON", communication error may occur.

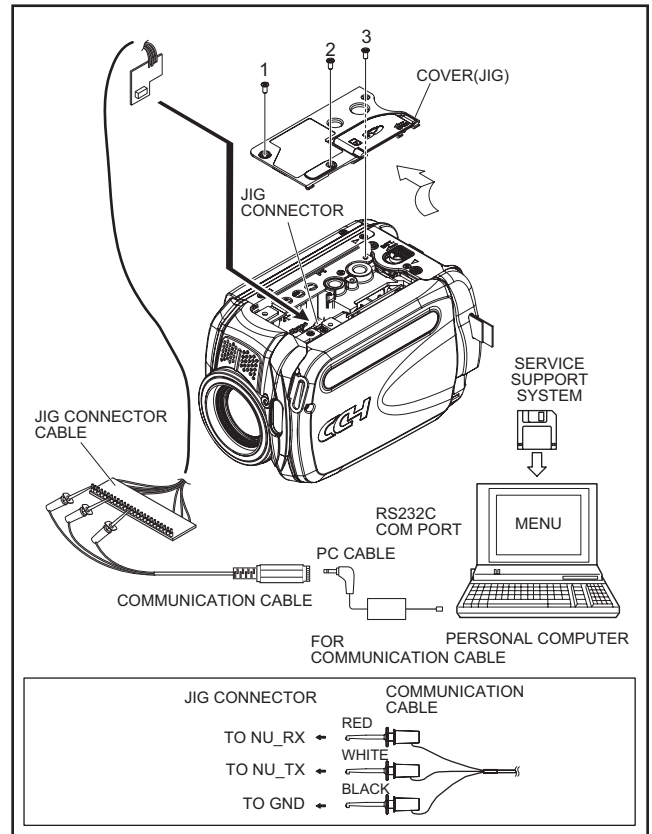
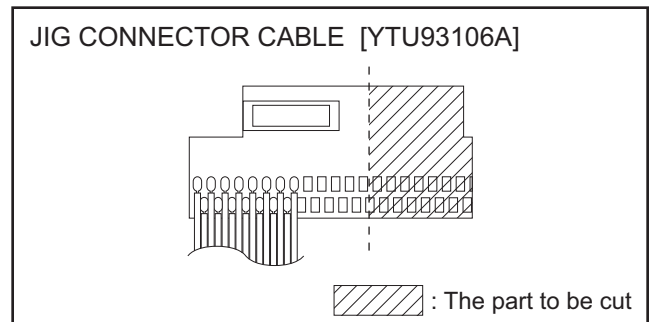


Fig.4-2-1

CAUTION

The JIG CONNECTOR CABLE cannot be connected with the COVER (JIG) removed because of its structure. It is necessary to cut a part of the connector board as shown below. Pay special attention during the procedure.



■ Jig connector diagrams

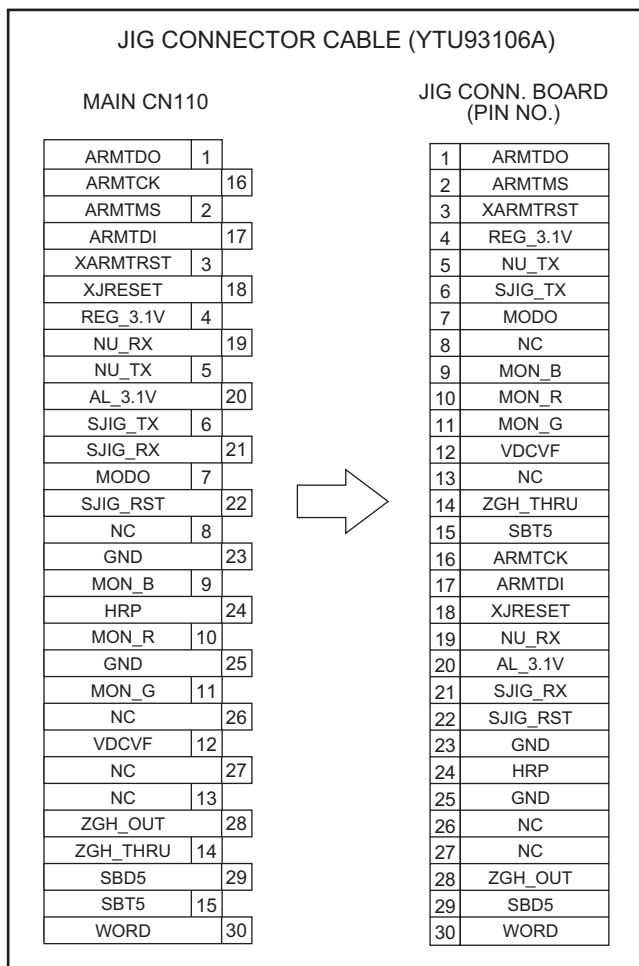


Fig.4-2-2

SECTION 5 TROUBLE SHOOTING

5.1 SERVICE NOTE

CABINET PARTS AND ELECTRICAL PARTS(1)

Symbol No.	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Removing order of screw	1	2	3	4	5	6	7	8	9	10
Place to stick screw	*	*	*	*	*	*	*	*	*	*
Reference drawing (Fig.No.)	CA1	FA1	FA2	FA3	FA4	FA5	FA6	FA7	FA8	FA8
Screw tightening torque	a									

CABINET PARTS AND ELECTRICAL PARTS(2)

Symbol No.	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]																		
Removing order of screw	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	
Place to stick screw	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Reference drawing (Fig.No.)	FA9	FA9	UA1	UA2	UA3	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4	UA4
Screw tightening torque	a		b		a		a		a		a		a		a		a		a		a		a		c	

[12]MONITOR ASSY

Symbol No.	[12]
Removing order of screw	1
Place to stick screw	*
Reference drawing (Fig.No.)	3-2-3
Screw tightening torque	a

[18]OP BLOCK ASSY/CCD BOARD ASSY

Symbol No.	[18]
Removing order of screw	1
Place to stick screw	*
Reference drawing (Fig.No.)	3-2-4
Screw tightening torque	e

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.

a : 0.098N · m (1.0kgf · cm) b : 0.245N · m (2.5kgf · cm) c : 0.118N · m (1.2kgf · cm) d : 0.147N · m (1.5kgf · cm) e : 0.078N · m (0.8kgf · cm)



JVC

Victor Company of Japan, Limited
Camcorder Category 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.YF133)

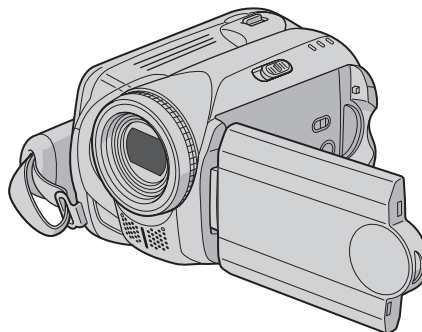
JVC

SCHEMATIC DIAGRAMS

HARD DISK CAMCORDER

GZ-MG27US, GZ-MG37US, GZ-MG39UC

CD-ROM No.SML200603



 **MASCOT
CAPSULE**

 **SD**TM

 **DOLBY
DIGITAL
STEREO CREATOR**


GZ-MG27USM [M6E335],
GZ-MG37USM, GZ-MG39UCM [M6E337]

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

CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions

The Components identified by the symbol  are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

- All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K: KΩ(1000Ω), M: MΩ (1000KΩ)
- All capacitance values are in μF, (P: PF).
- All inductance values are in μH, (m: mH).
- All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

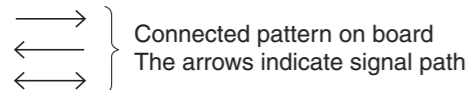
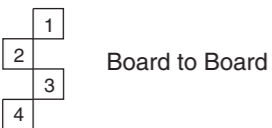
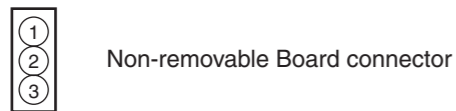
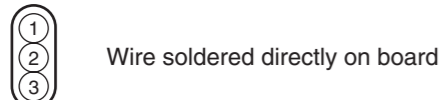
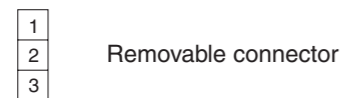
Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.

2. Indications of control voltage

AUX : Active at high.

$\overline{\text{AUX}}$ or AUX(L) : Active at low.

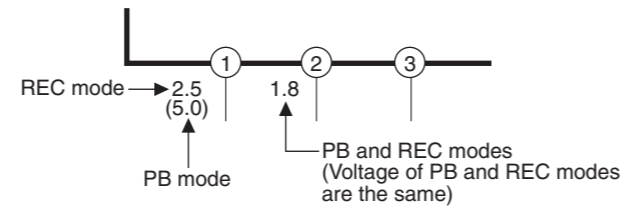
3. Interpreting Connector indications



Note: For the destination of each signal and further line connections that are cut off from the diagram, refer to "BOARD INTERCONNECTIONS"

4. Voltage measurement

- Regulator (DC/DC CONV) circuits
REC : Colour bar signal.
PB : Alignment tape (Colour bar).
— : Unmeasurable or unnecessary to measure.
- Indication on schematic diagram
Voltage indications for REC and PB mode on the schematic diagram are as shown below.

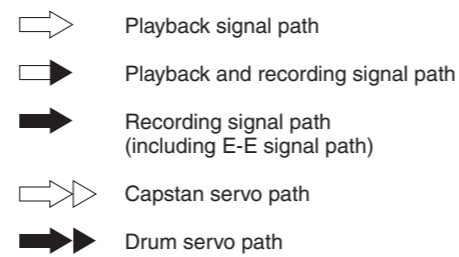


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

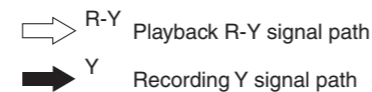
5. Signal path Symbols

The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.



(Example)



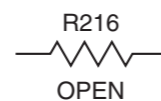
6. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.



CIRCUIT BOARD NOTES

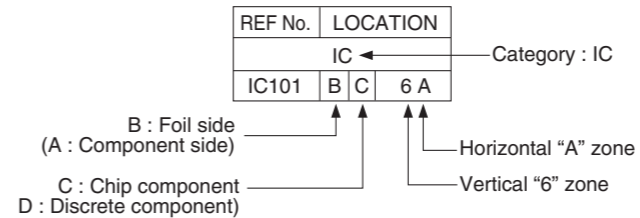
1. Foil and Component sides

- Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.
- Component side (A side) :
Parts on the component side seen from component face (parts face) indicated.

Parts location are indicated by guide scale on the circuit board.

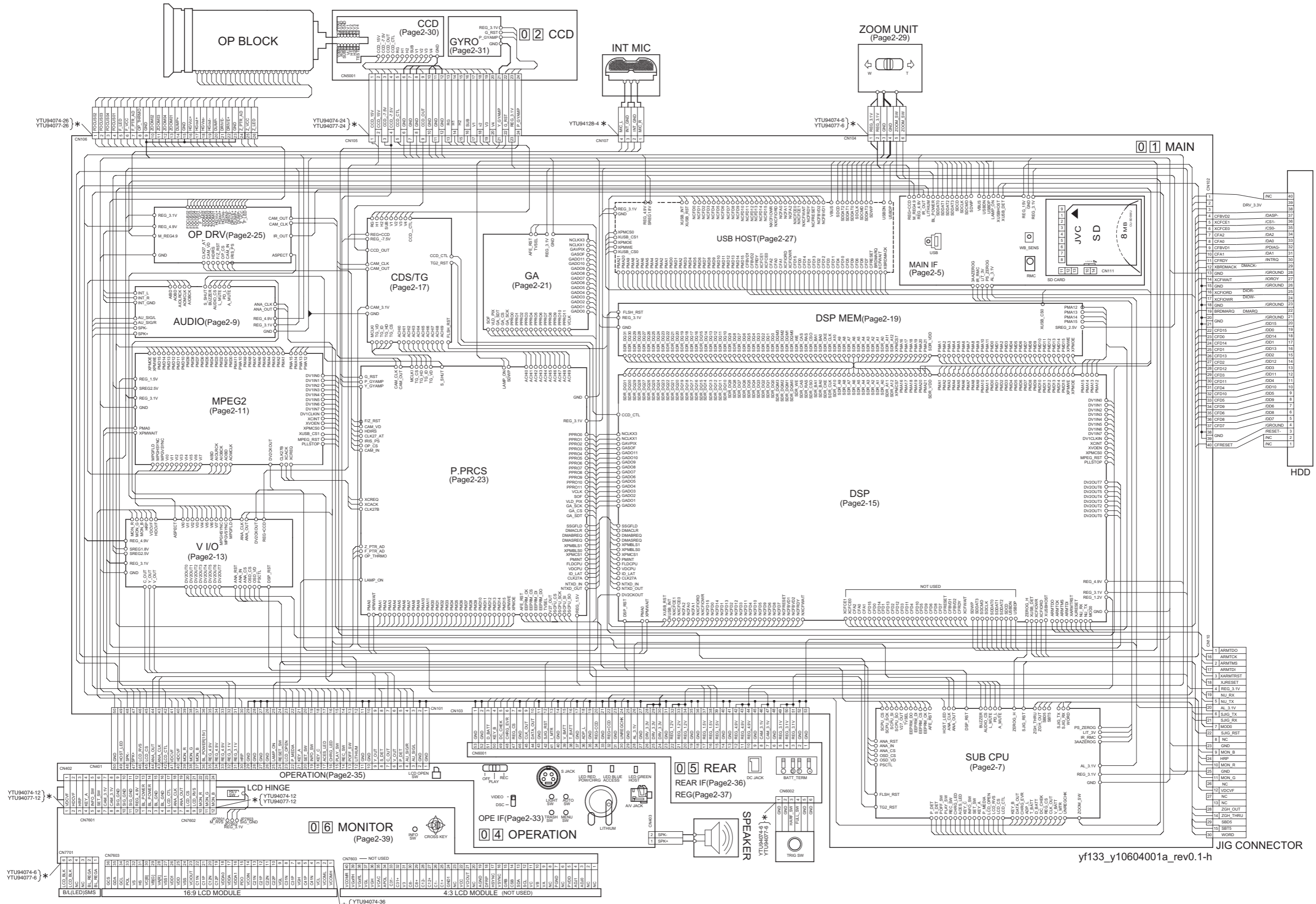
2. Parts location guides

Parts location are indicated by guide scale on the circuit board.



Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

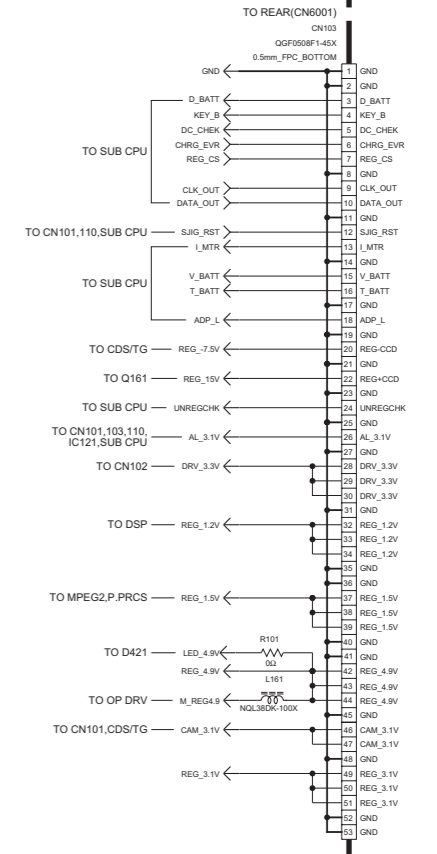
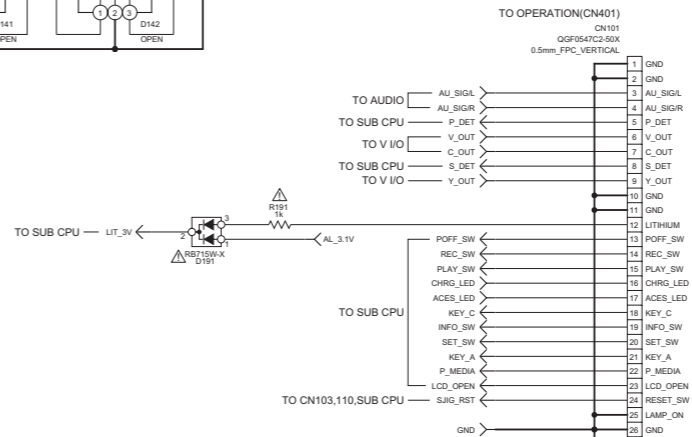
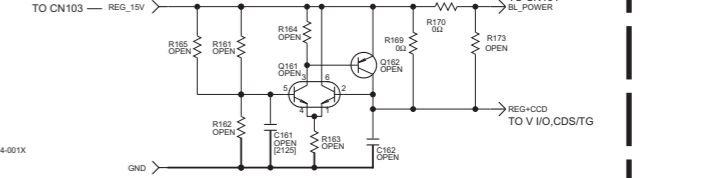
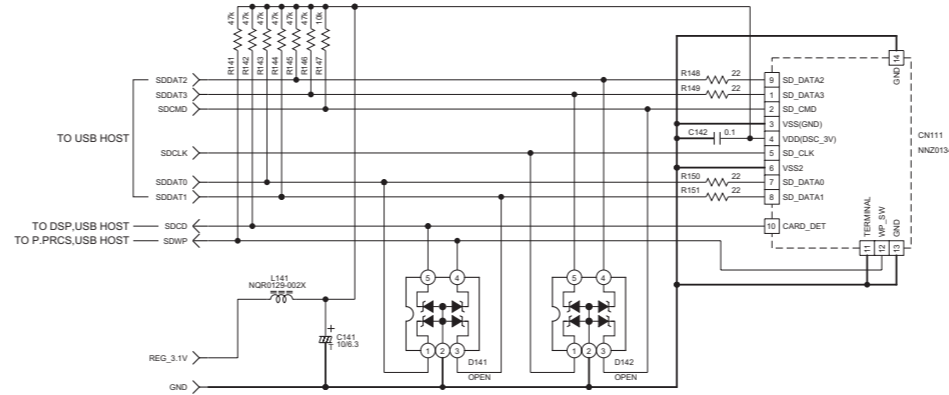
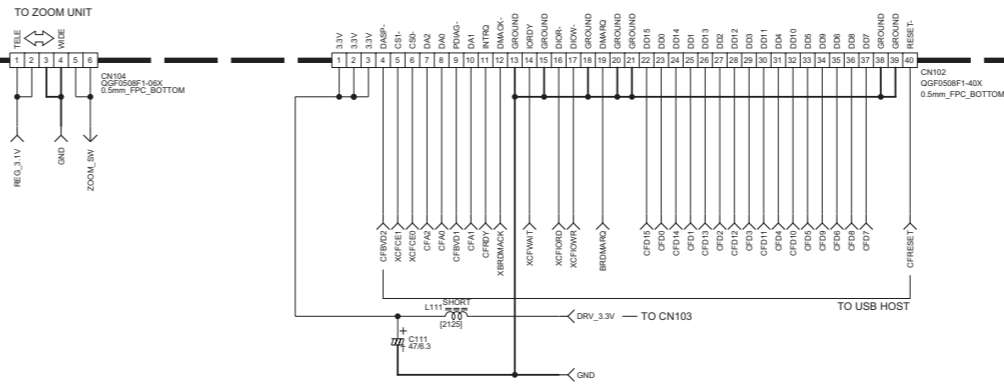
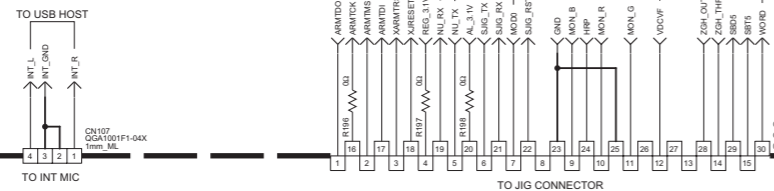
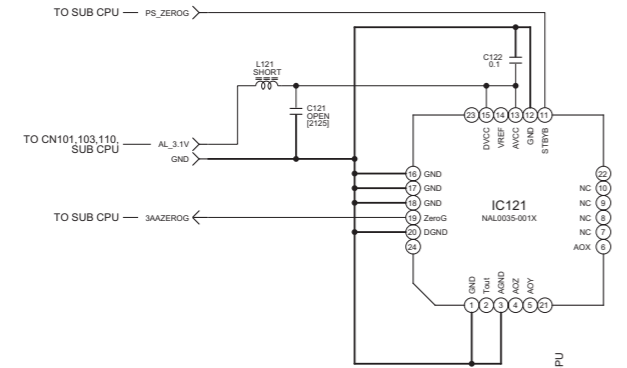
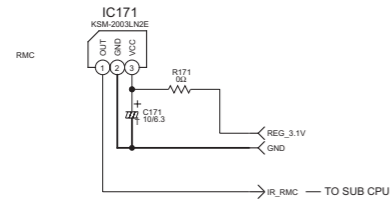
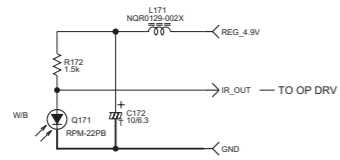
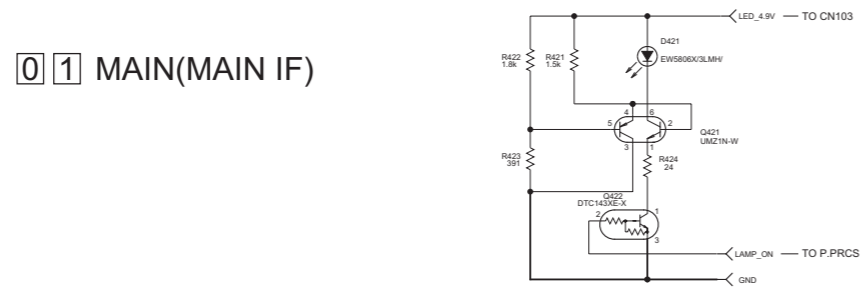
BOARD INTERCONNECTION



NOTES: The number of patch cords (*) are indicated by interconnected.

MAIN(MAIN IF) SCHEMATIC DIAGRAM

0 1 MAIN(MAIN IF)

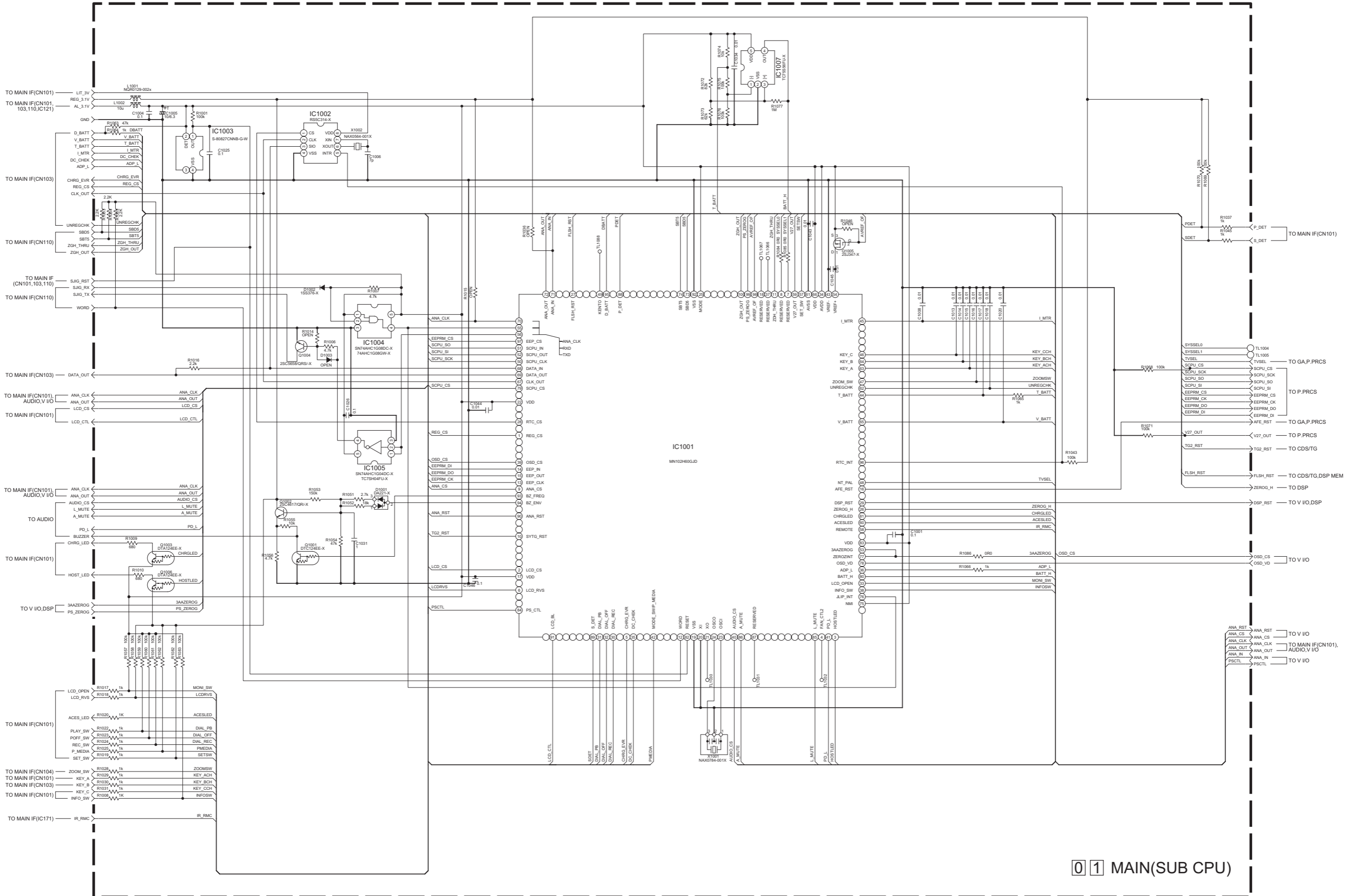


SYMBOL NO. 101-		SYMBOL NO. 161-		SYMBOL NO. 191-	
LAST NO.	VACANT NO.	LAST NO.	VACANT NO.	LAST NO.	VACANT NO.
CN	111	Q	162	D	191
J	101	R	189	R	198
			166-168		192-195

yf133_y10605001a_rev0.1

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (*) is not used.

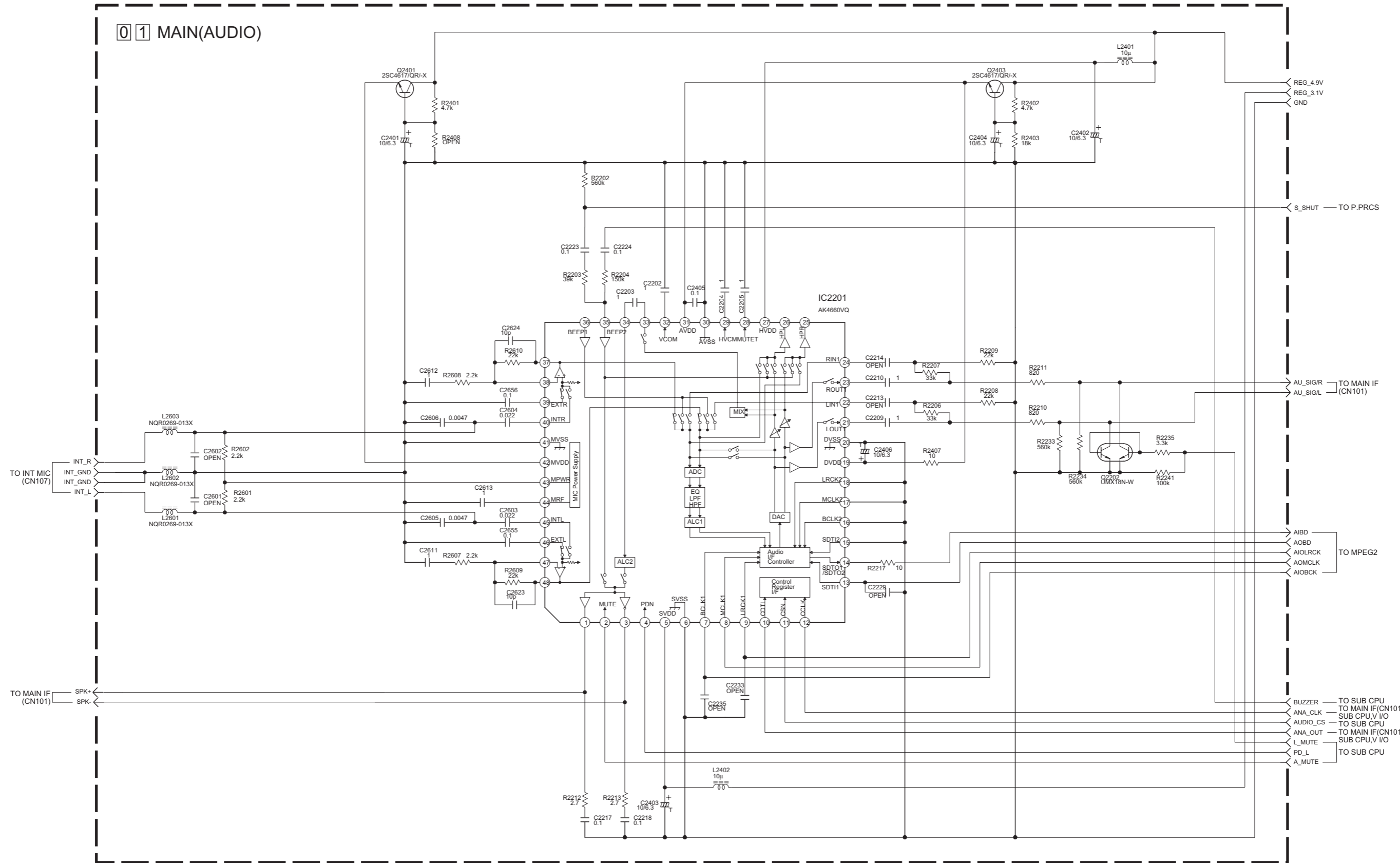
■ MAIN(SUB CPU) SCHEMATIC DIAGRAM



NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".

2. The parts with marked (*) is not used.

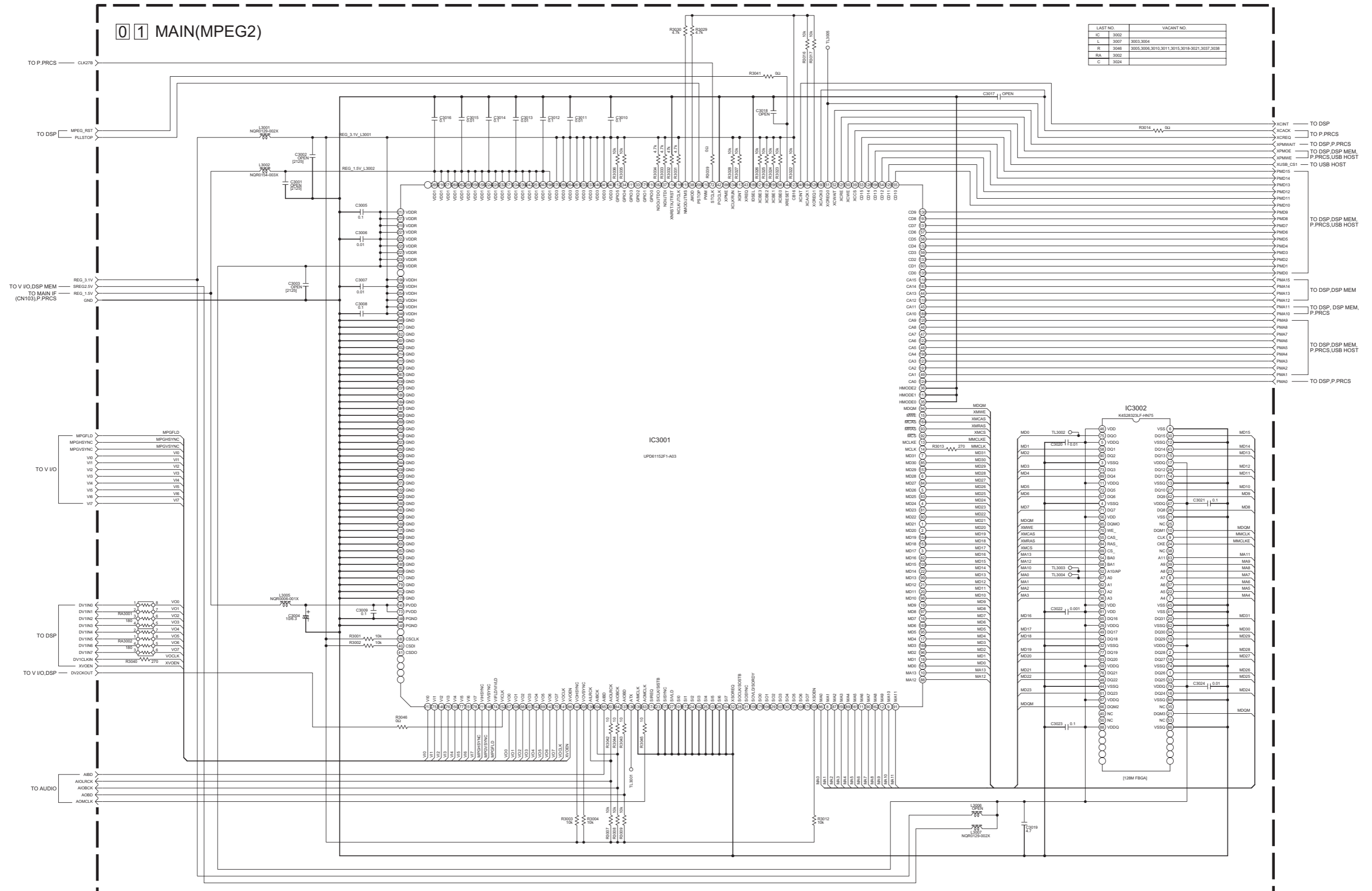
MAIN(AUDIO) SCHEMATIC DIAGRAM



yf133_y20403001a_rev0.1

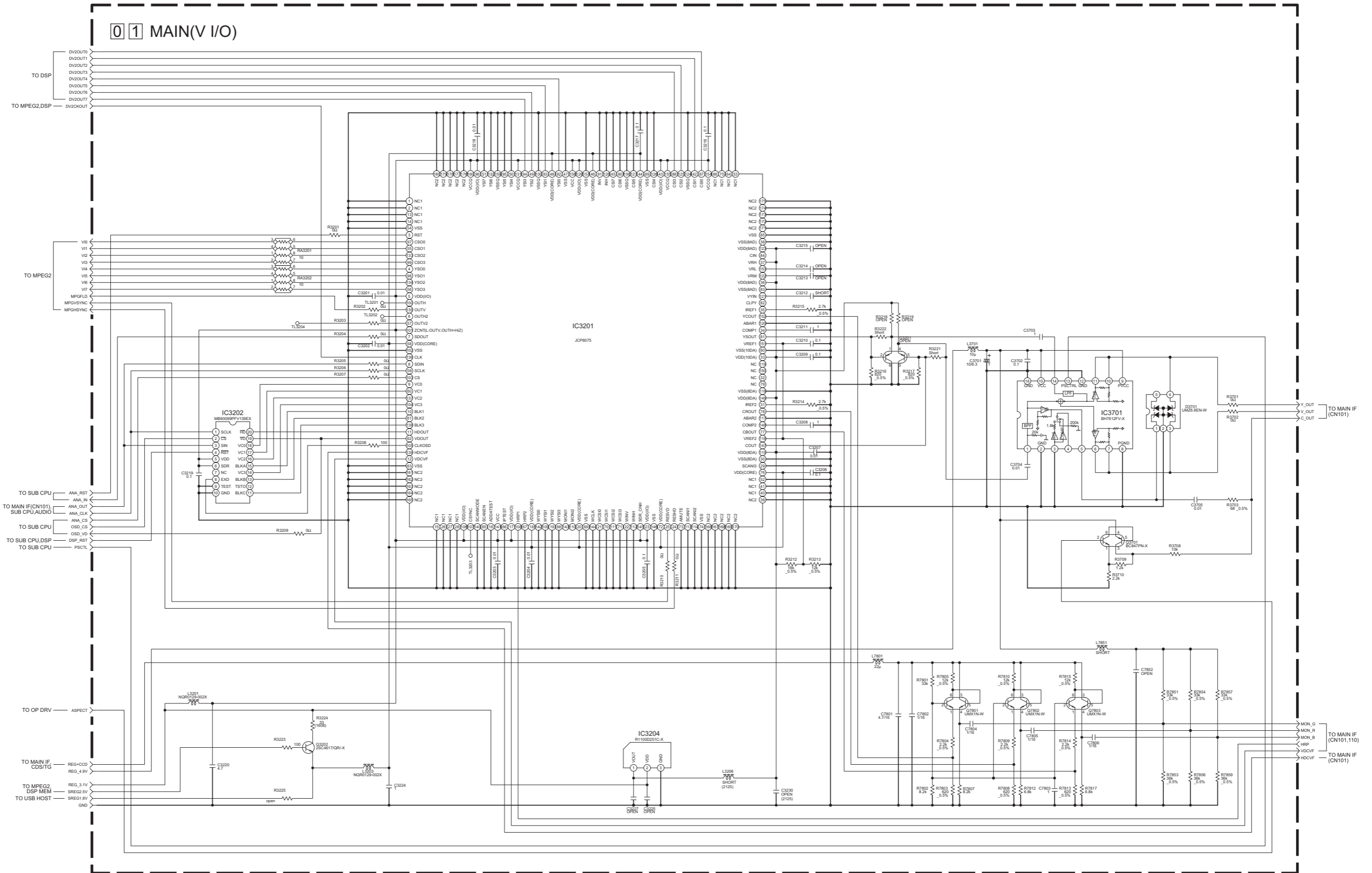
NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

MAIN(MPEG2) SCHEMATIC DIAGRAM



NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

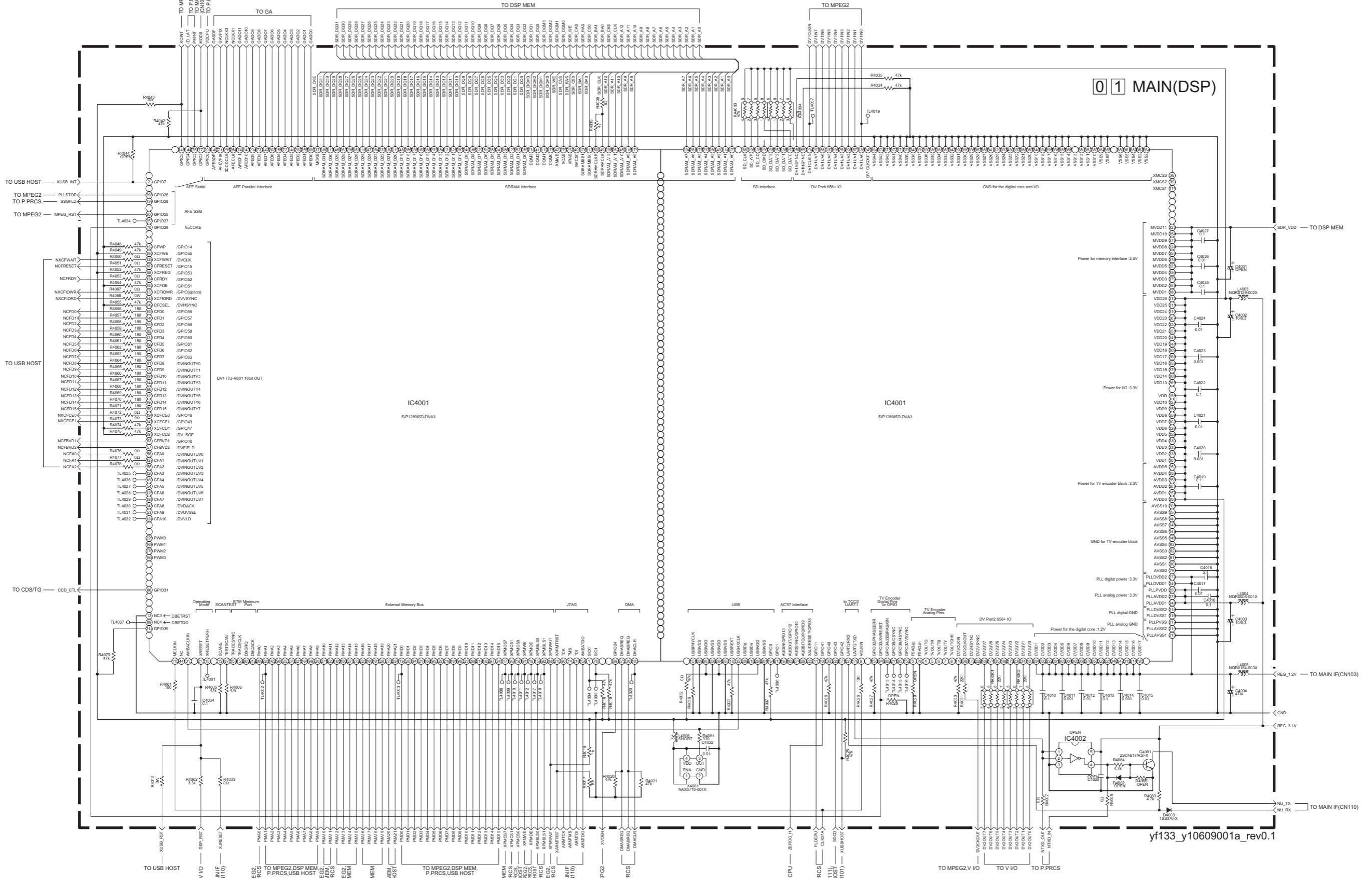
MAIN(V I/O) SCHEMATIC DIAGRAM



yf133_y10608001a_rev0.1

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

MAIN(DSP) SCHEMATIC DIAGRAM

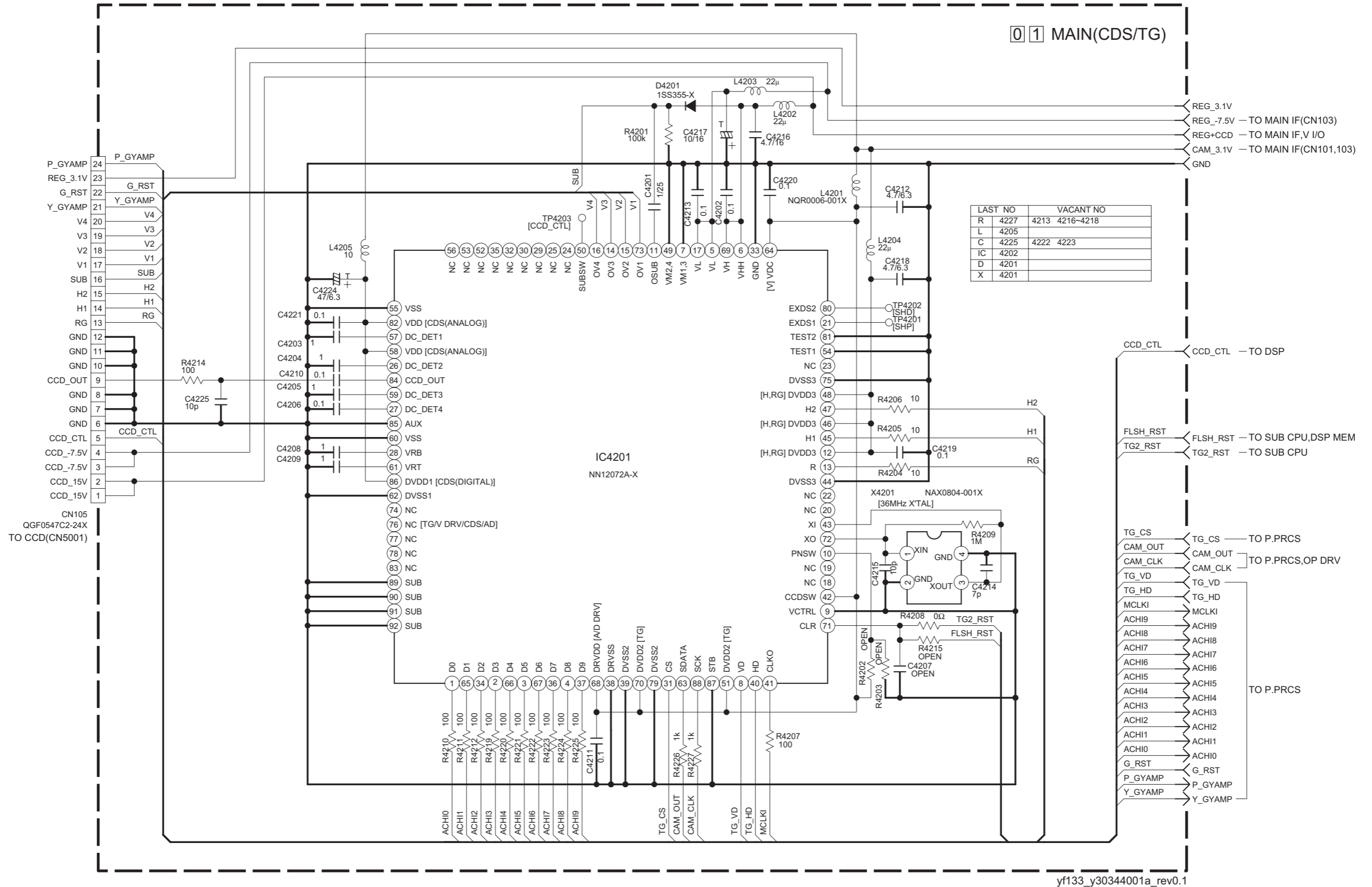


NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".

2. The parts with marked (*) is not used.

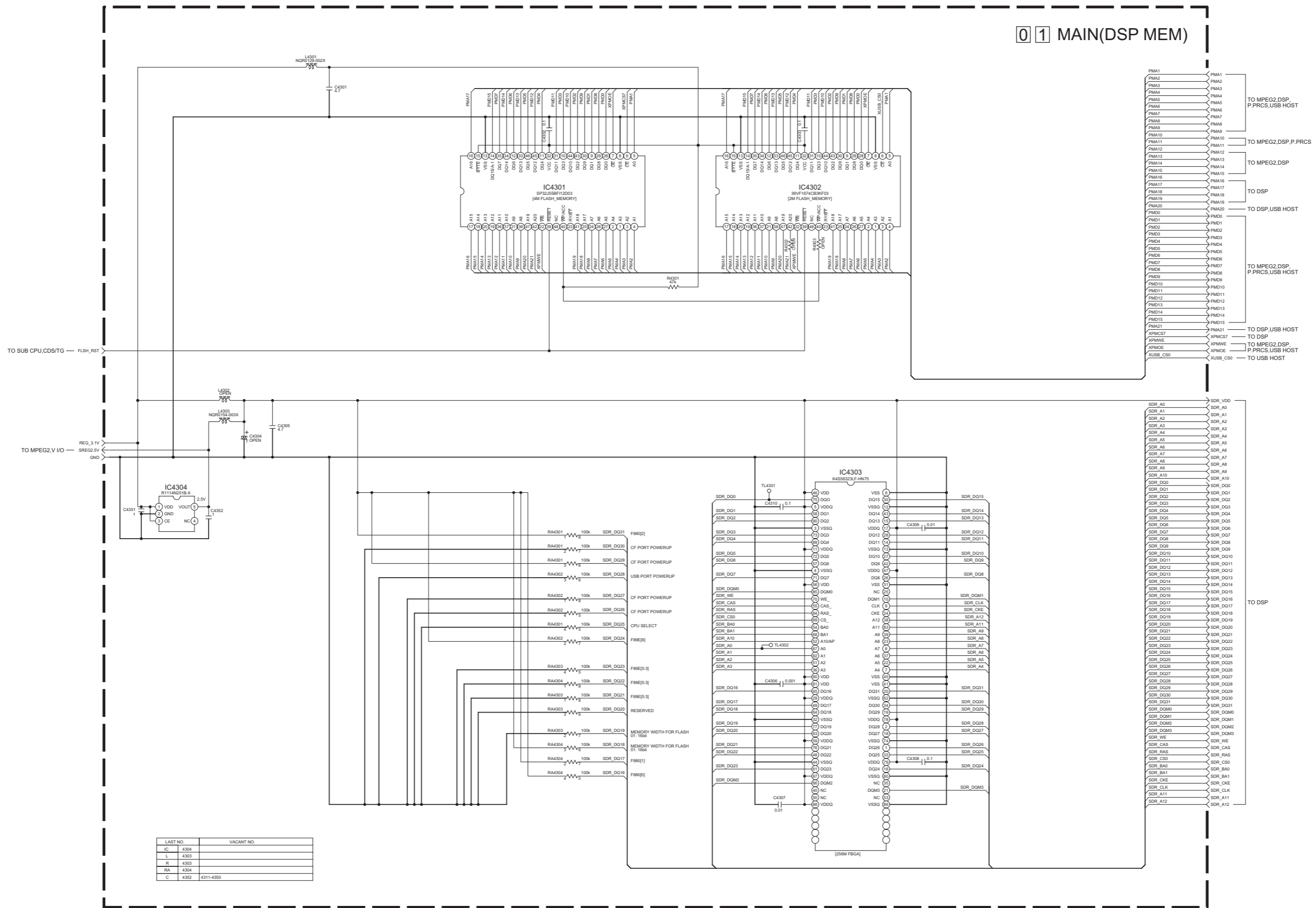
LAST NO.		VACANT NO.	
IC	4002	L	4008 4001,4002,4008,4007
R	4008	R	4008 4004,4009-4014,4022,4024,4033,4040,4041,4045-4047,4080,4082
D	4001	RA	4004
D	4003	C	4034 4005-4009,4029,4031,4033

MAIN(CDS/TG) SCHEMATIC DIAGRAM



NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

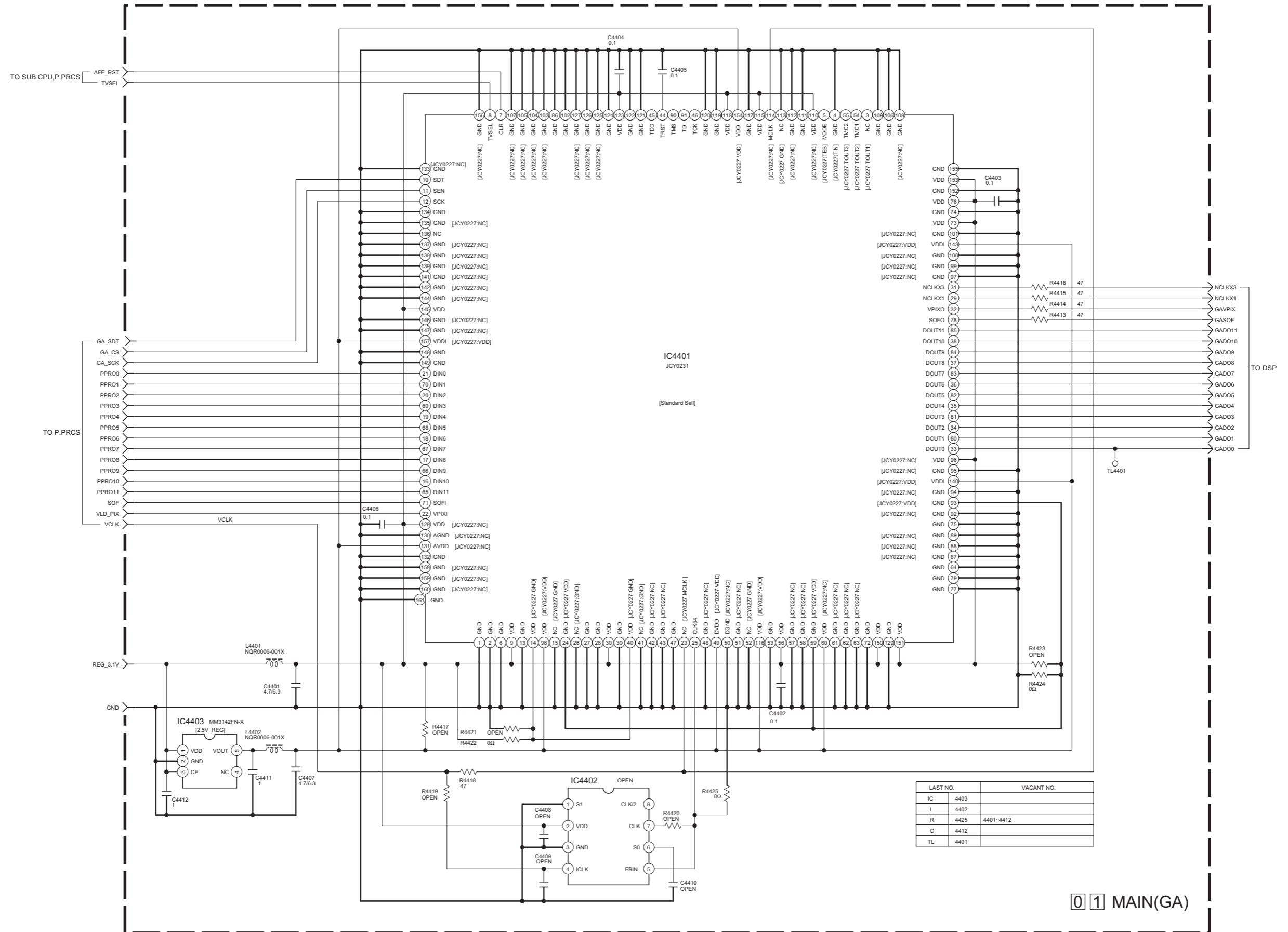
MAIN(DSP MEM) SCHEMATIC DIAGRAM



yf133_y10610001a_rev0.1

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (*) is not used.

MAIN(GA) SCHEMATIC DIAGRAM

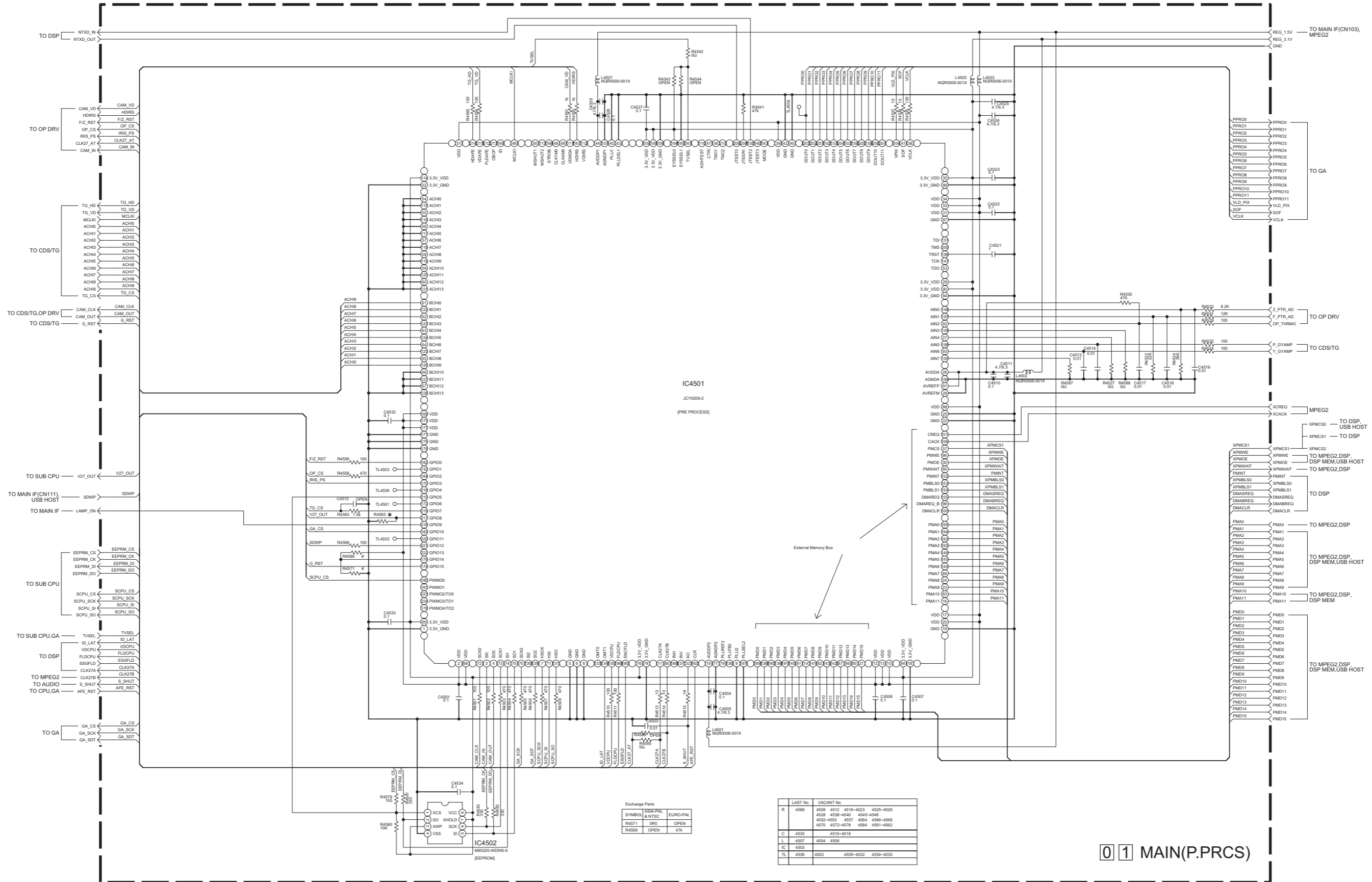


LAST NO.	VACANT NO.
IC 4403	
L 4402	
R 4425	4401-4412
C 4412	
TL 4401	

01 MAIN(GA)

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

MAIN(P.PRCs) SCHEMATIC DIAGRAM



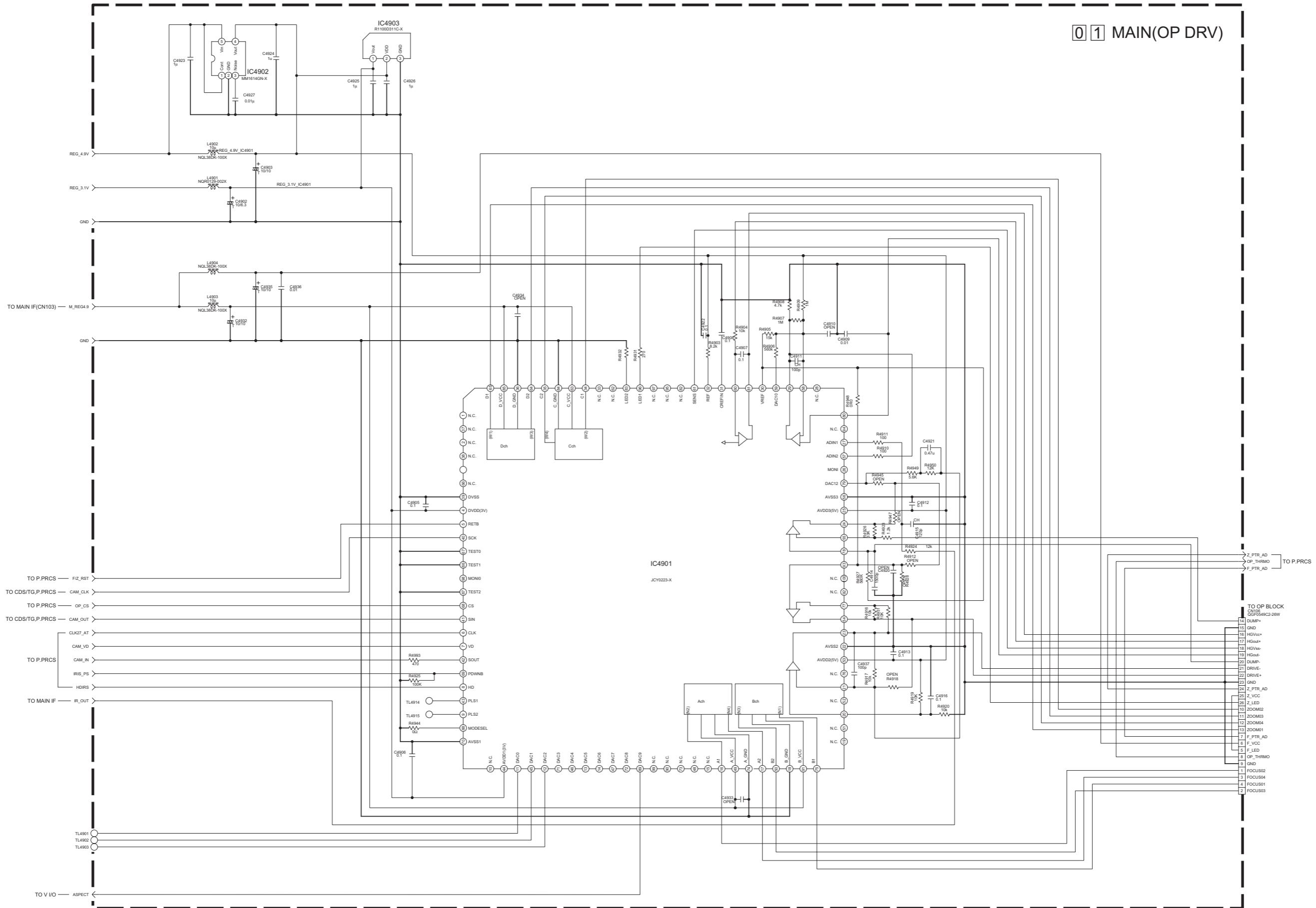
LAST No	VACANT No
R 4589	4509 4512 4516-4523 4525-4528
	4528 4538-4540 4545-4549
	4552-4553 4557 4564 4566-4568
	4570 4572-4578 4584 4591-4592
C 4535	4515-4516
L 4507	4504 4506
IC 4503	
TL 4536	4502 4505-4532 4534-4535

0 1 MAIN(P.PRCs)

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

MAIN(OP DRV) SCHEMATIC DIAGRAM

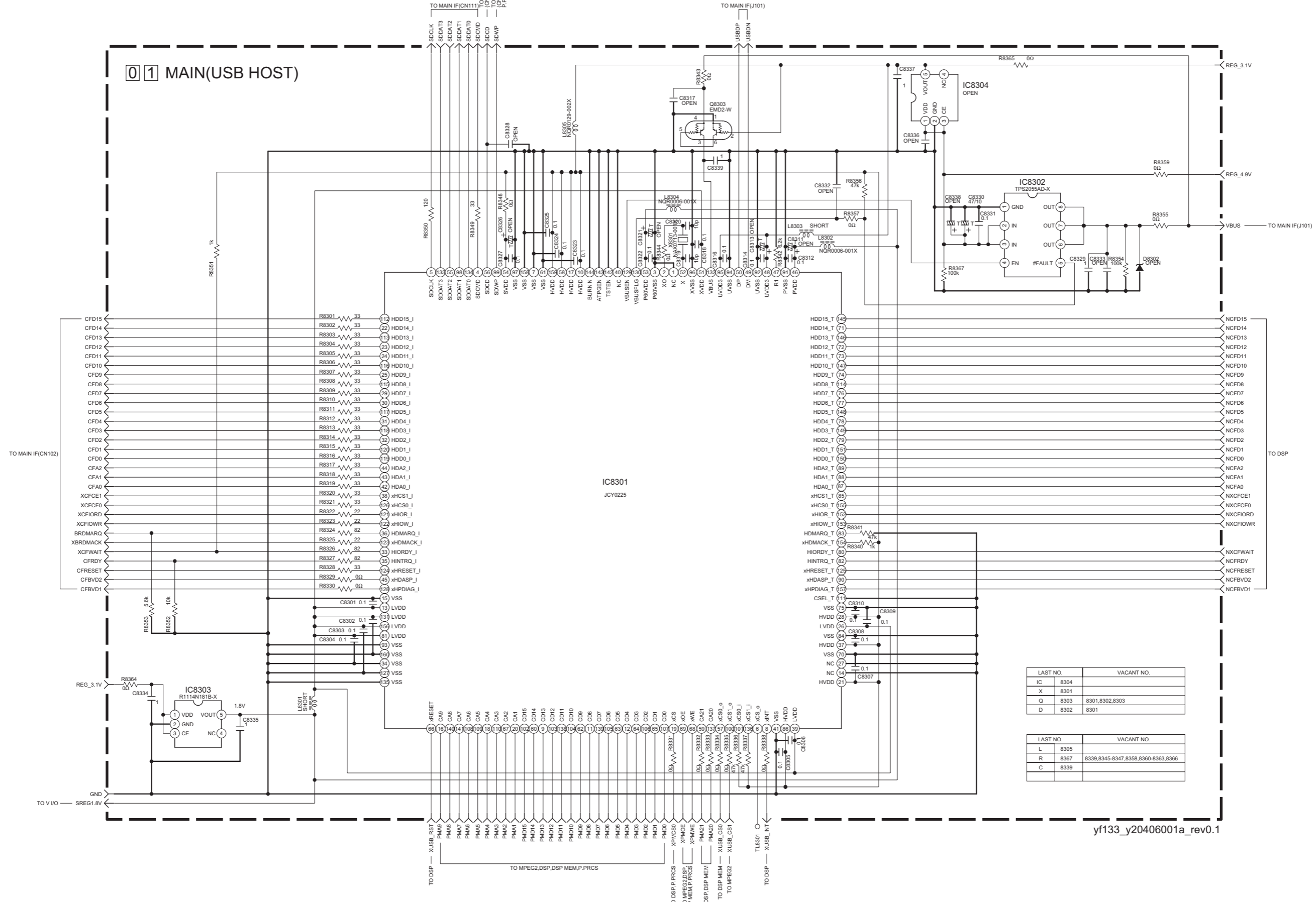
01 MAIN(OP DRV)



NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

yf133_y10612001a_rev0.1

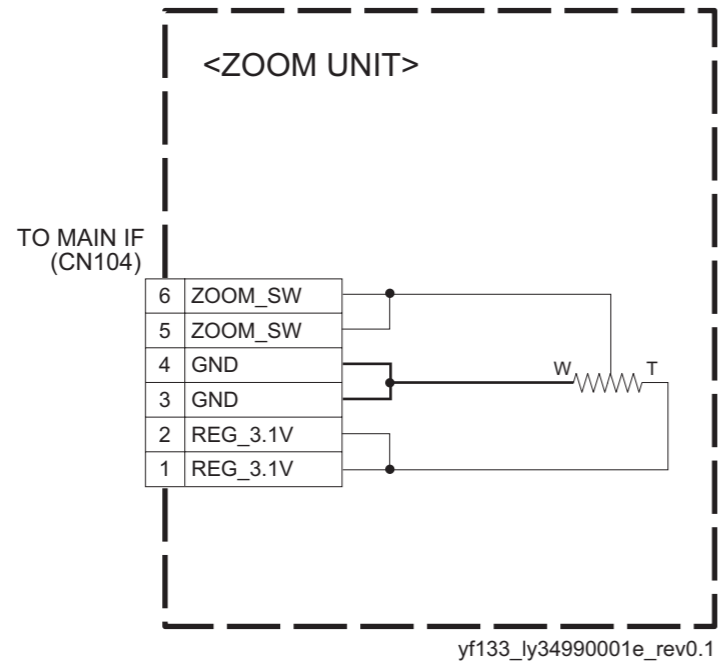
MAIN(USB HOST) SCHEMATIC DIAGRAM



yf133_y20406001a_rev0.1

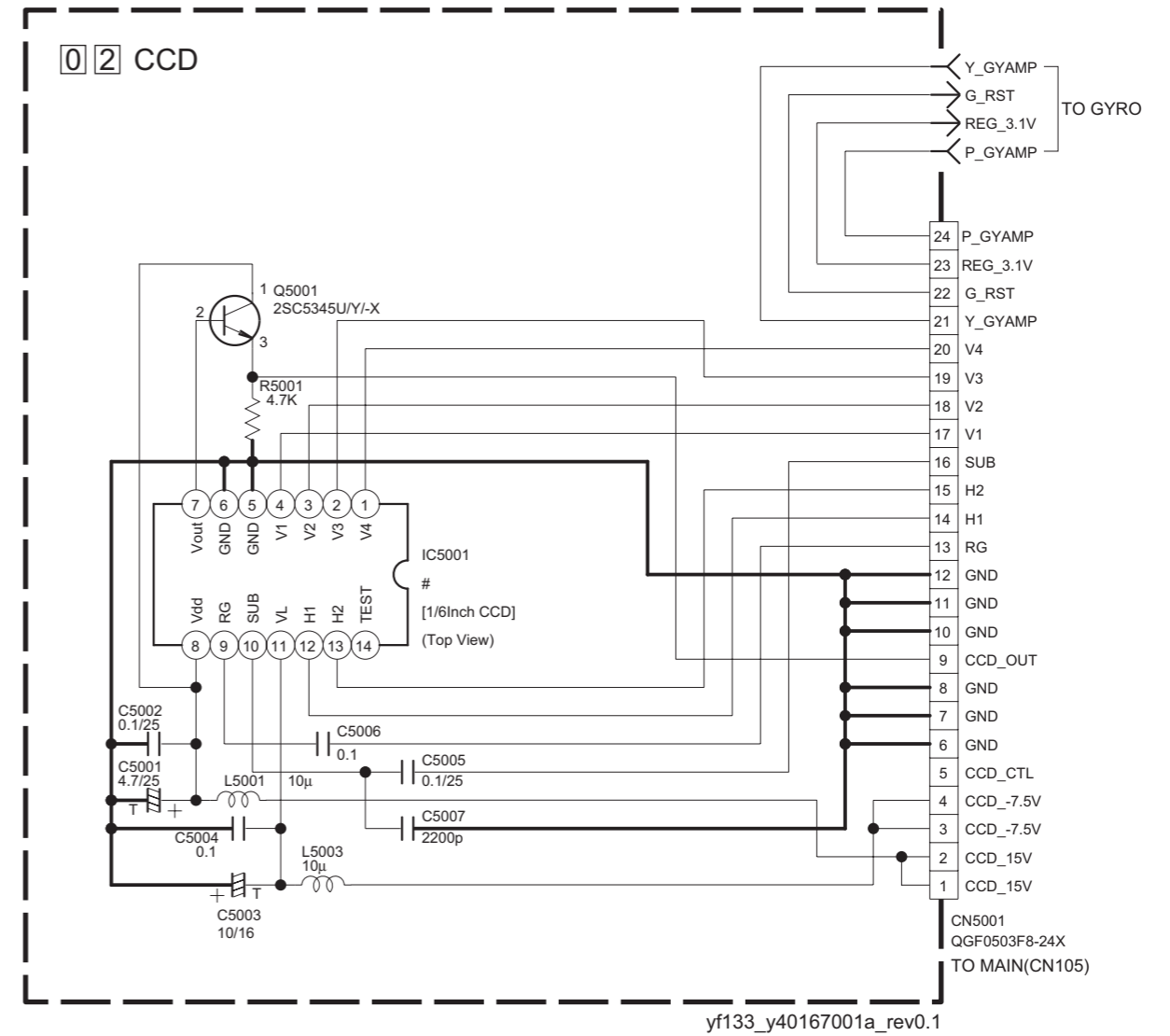
NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

■ ZOOM UNIT



NOTE: The schematic diagram is only for reference. Avoid replacing individual parts. Replace the entire unit only.

■ CCD SCHEMATIC DIAGRAM

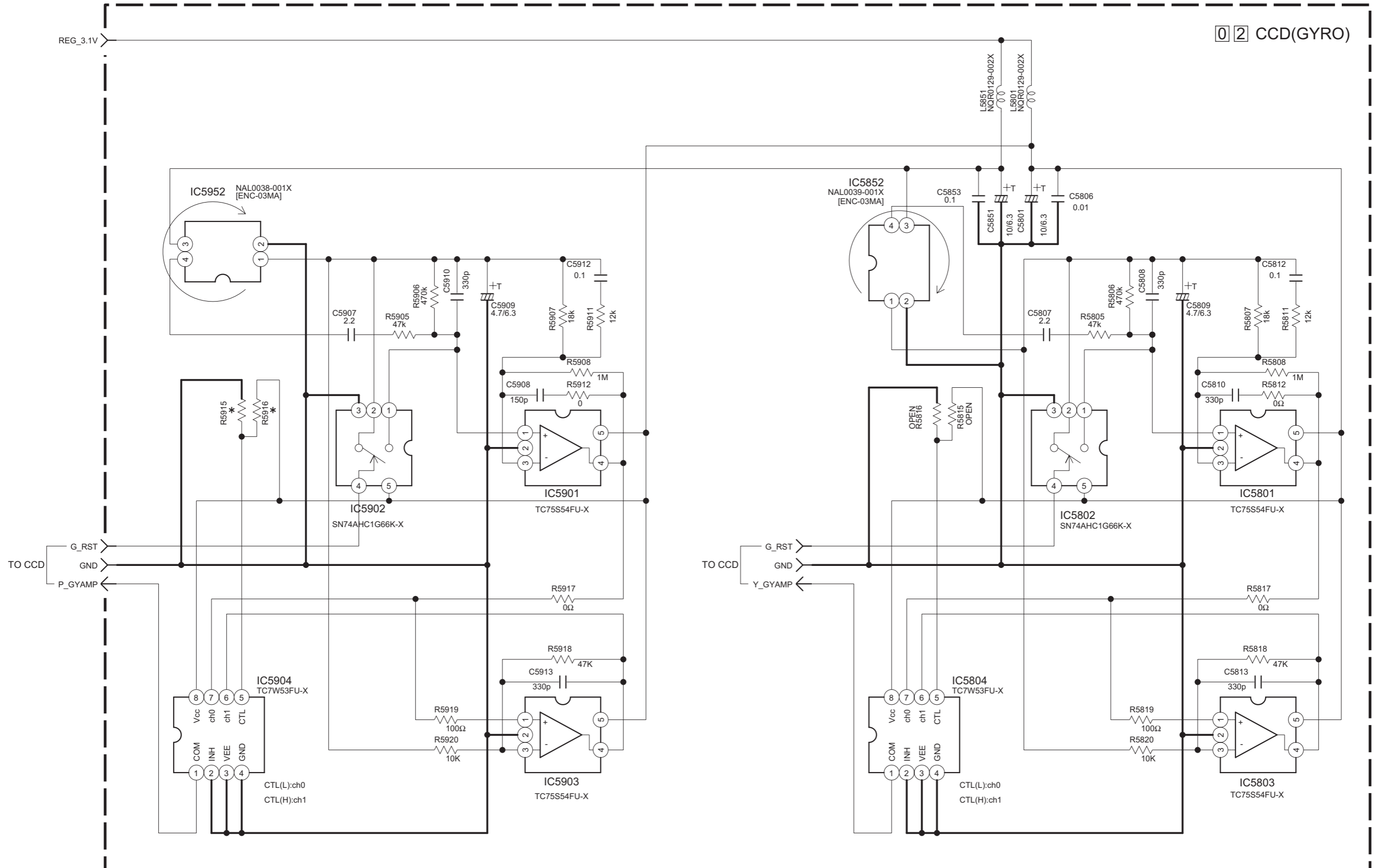


SYMBOL	IC5001	
SYSTEM	NTSC	PAL
CCD	ICX610UKM-V ICX610UKM-K	ICX611UKM-V ICX611UKM-K

	LAST No	VACANT No
R	5001	
C	5007	
L	5003	5002
Q	5001	
IC	5001	
CN	5001	

NOTES :1. For the destination of each signal and further line connection that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.
 3. IC5001 is incorporated in the CCD base assembly .
 When IC5001 needs replacement, replace the CCD base assembly in whole because it cannot be replaced alone.

■ CCD(GYRO) SCHEMATIC DIAGRAM

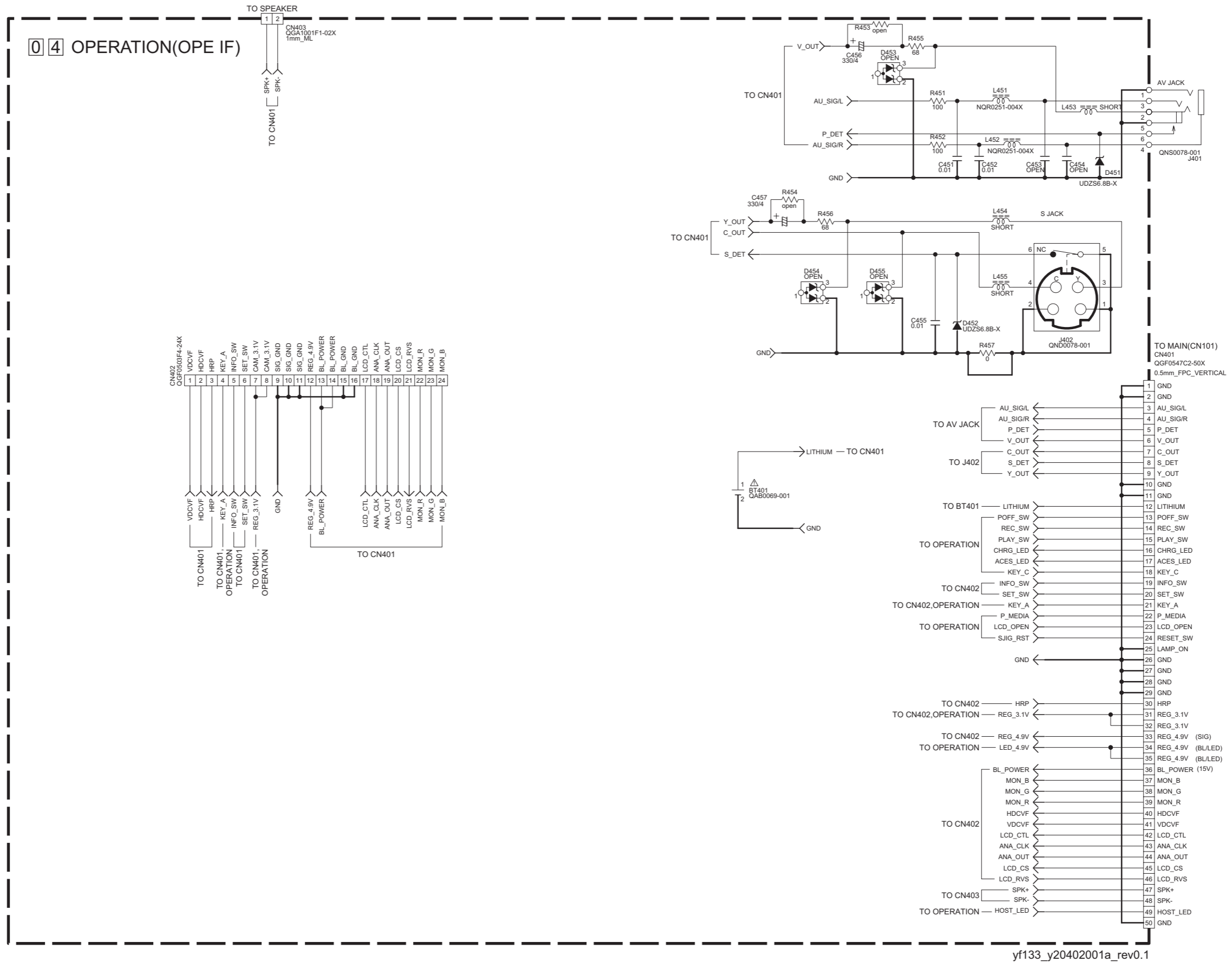


0 2 CCD(GYRO)

yf133_y30345001a_rev0.1

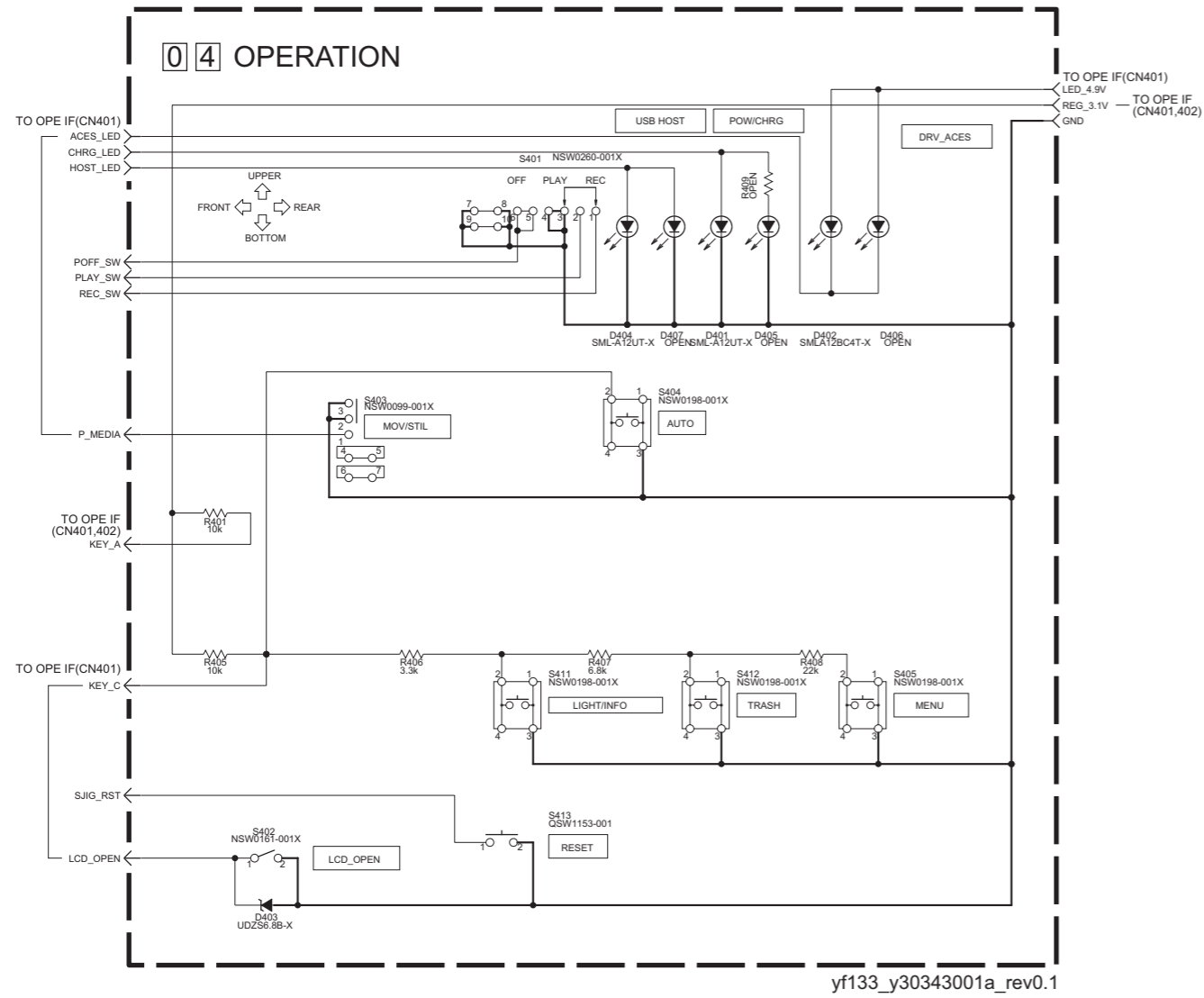
NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

■ OPERATION(OPE IF) SCHEMATIC DIAGRAM

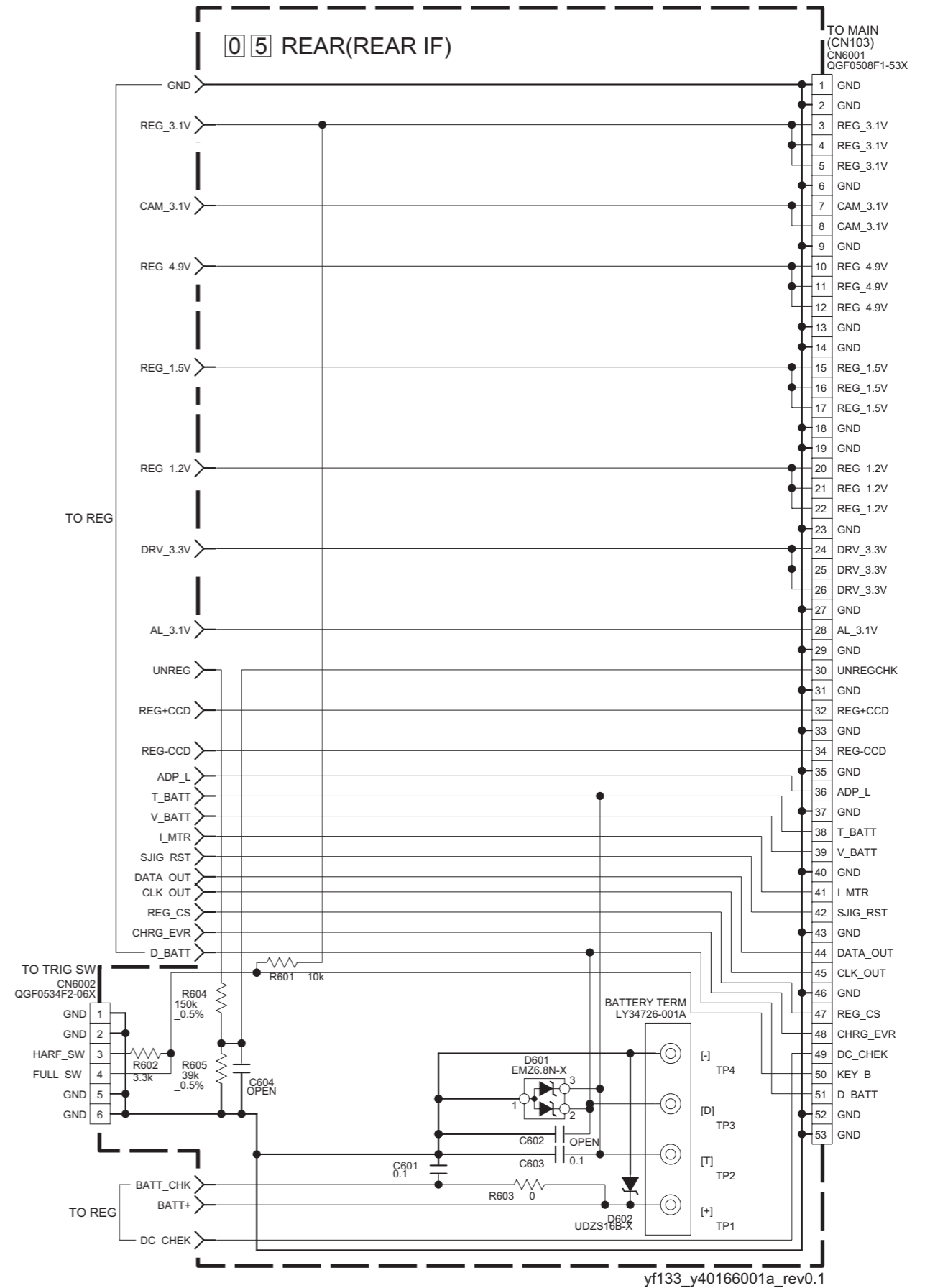


NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

OPERATION SCHEMATIC DIAGRAM



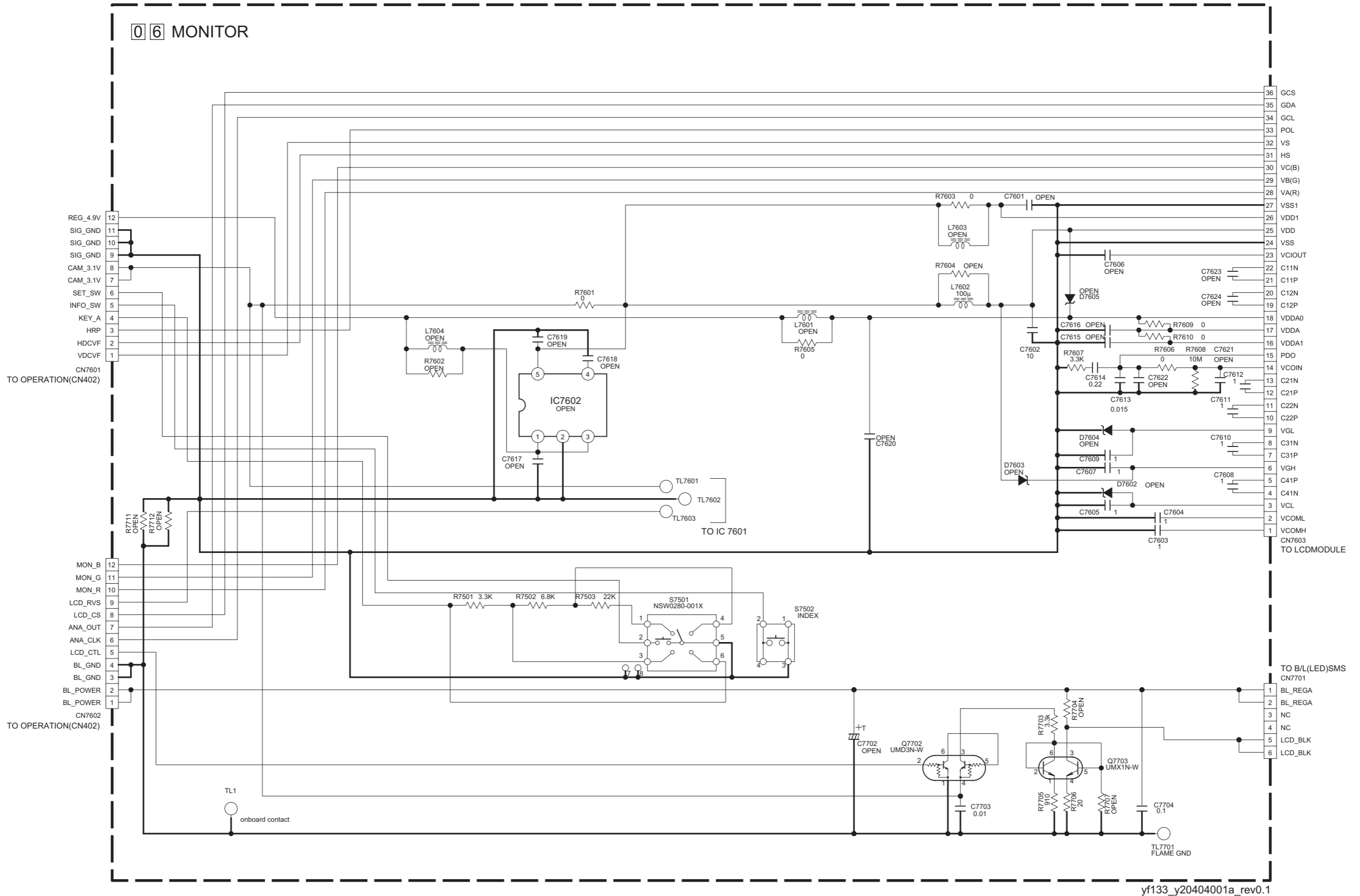
REAR(REAR IF) SCHEMATIC DIAGRAM



NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (*) is not used.

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (*) is not used.

MONITOR SCHEMATIC DIAGRAM



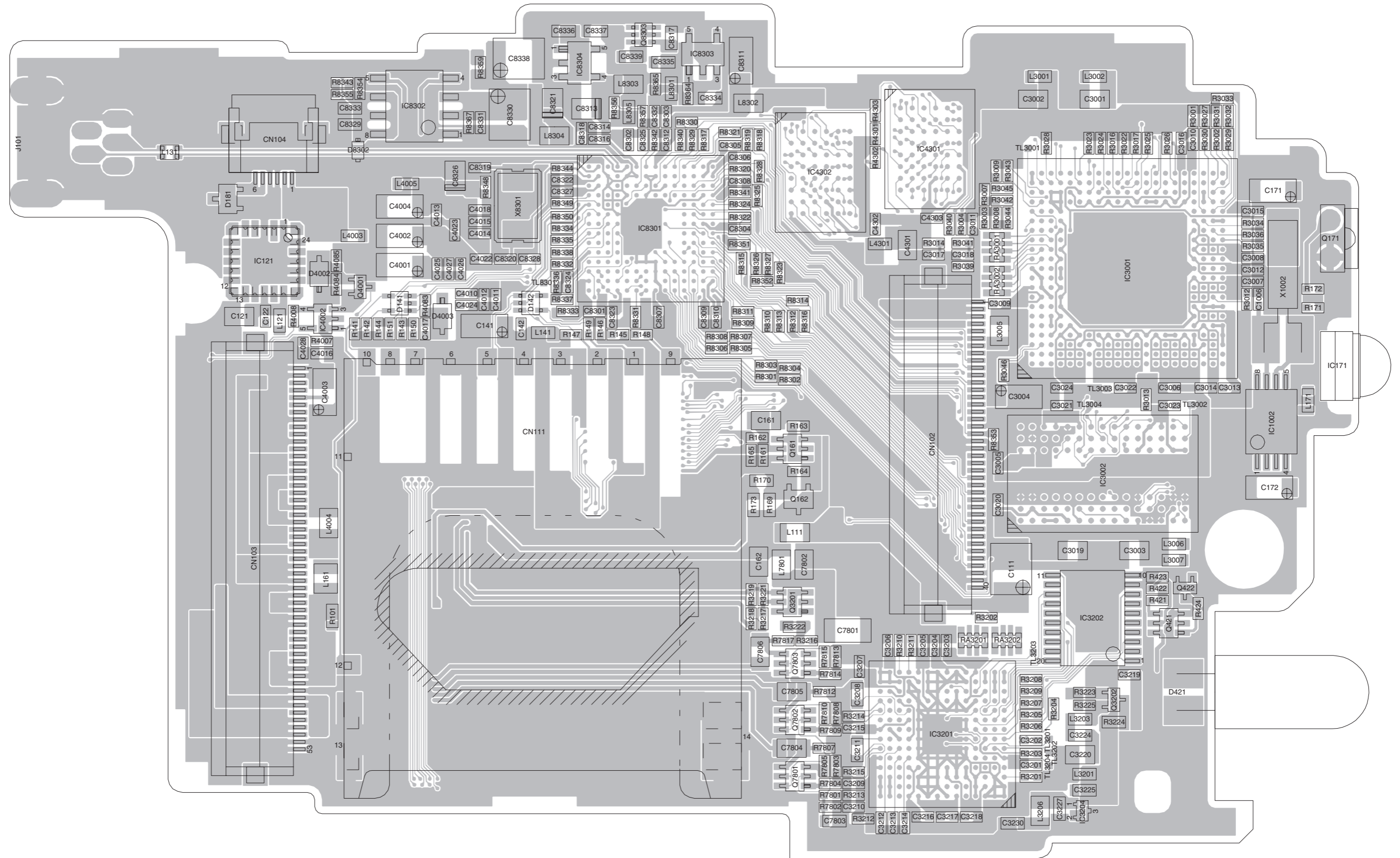
NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
 2. The parts with marked (*) is not used.

MAIN CIRCUIT BOARD

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

<01>MAIN
LYB10066-001B

FOIL SIDE(B)



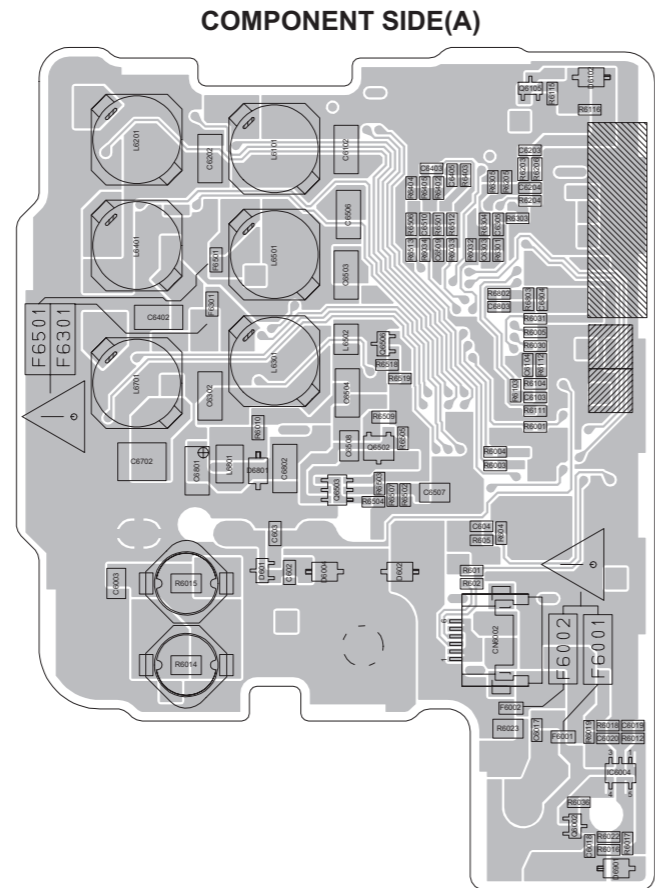
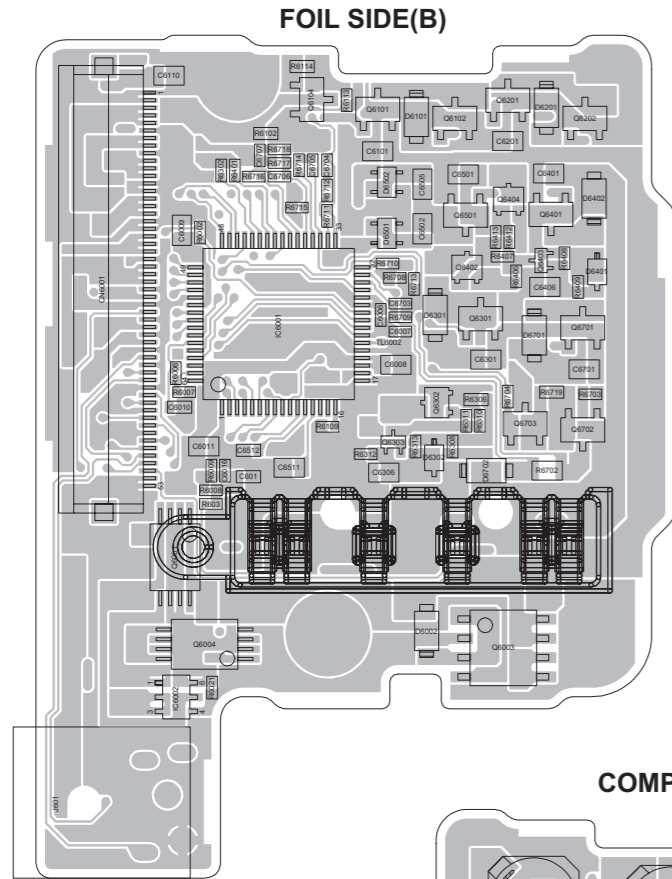
REAR CIRCUIT BOARD



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'INCENDIE, REMPLACER LES FUSIBLES PAR UN AUTRE DE MEME TYPE ET DE MEME TENSION.

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

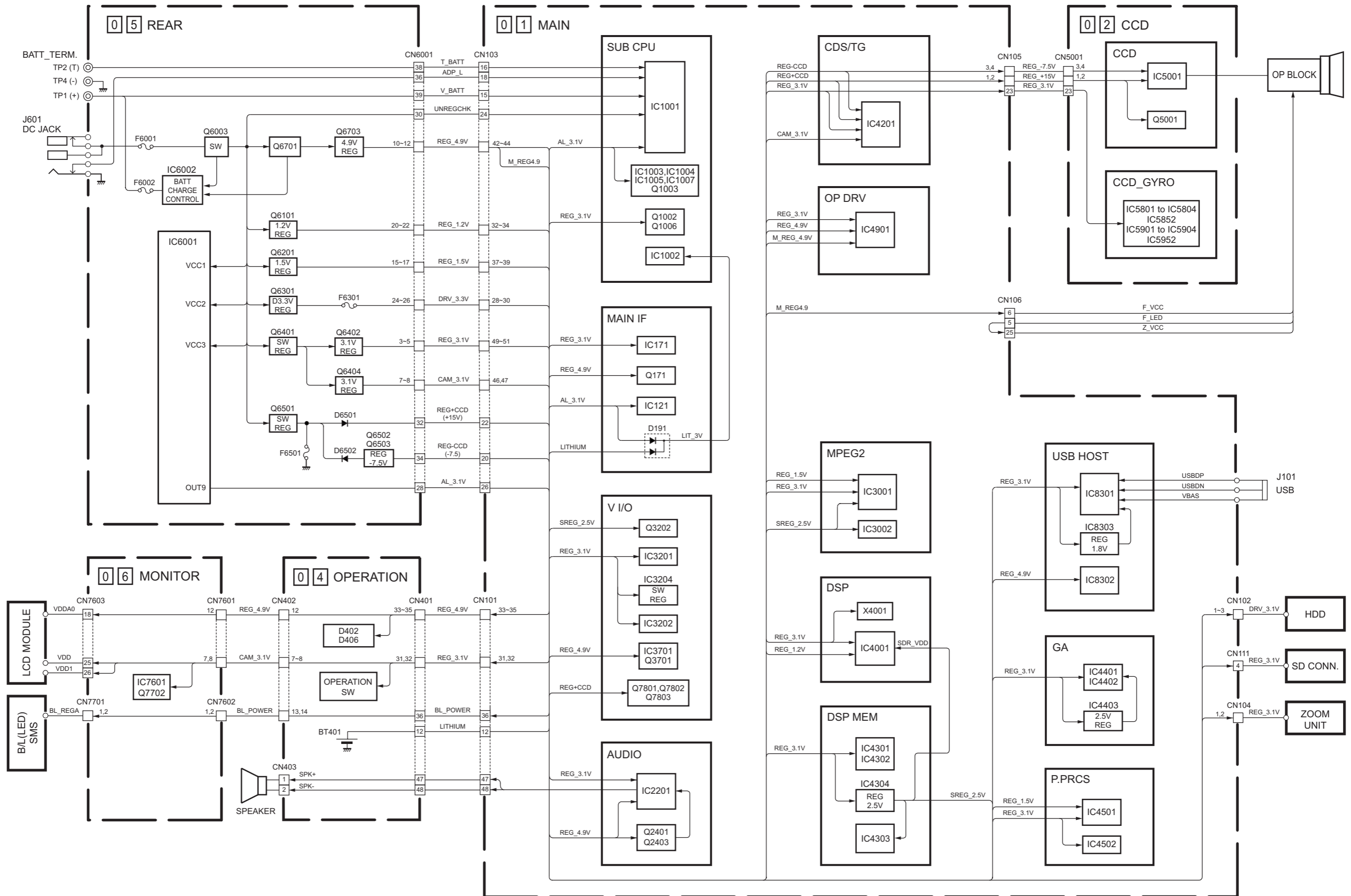
<05>REAR
LYB10068-001B



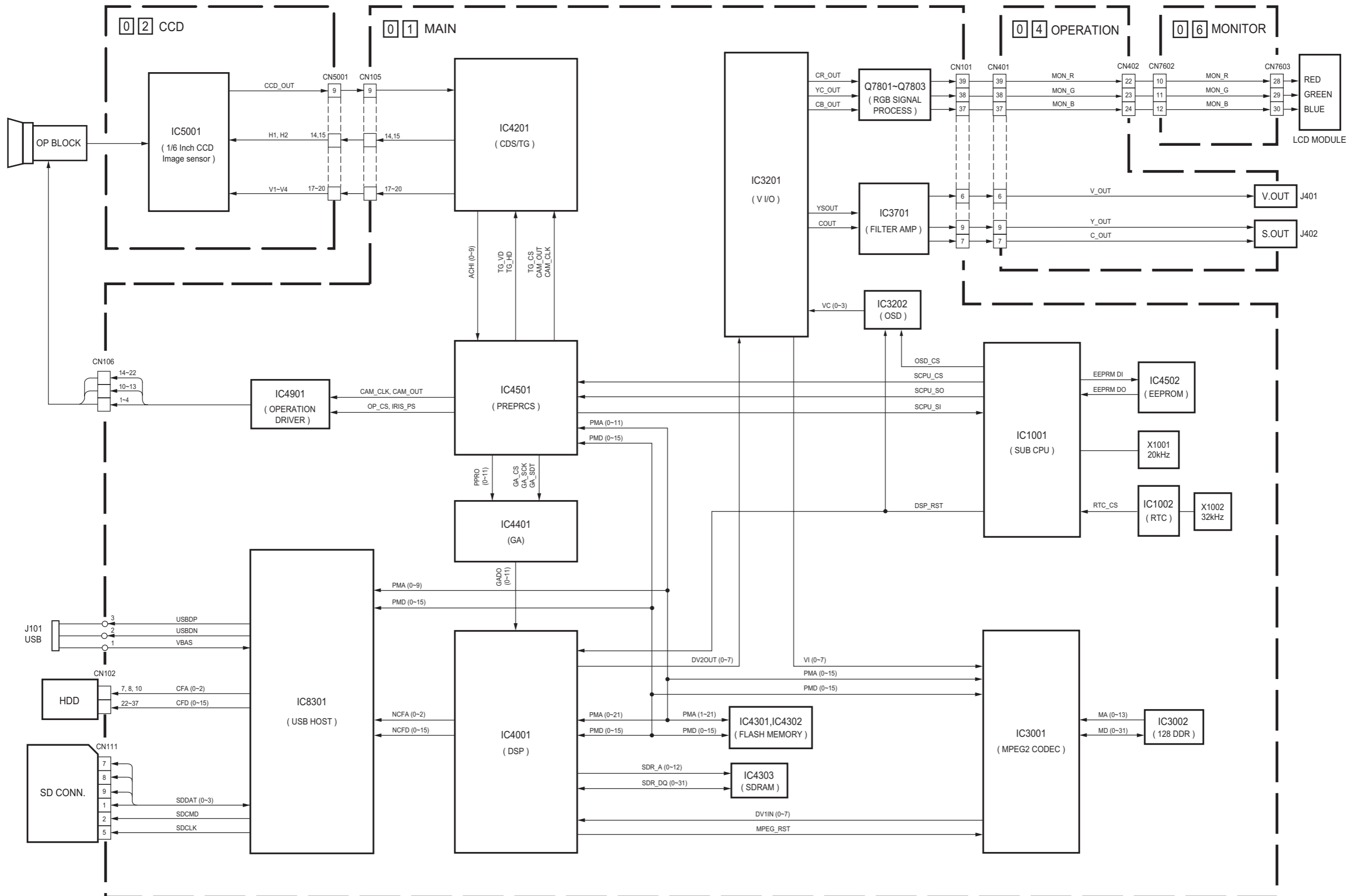
VOLTAGE CHARTS

<MAIN>			<REAR>			<MONITOR>		
MODE PIN NO.	REC	PLAY	MODE PIN NO.	REC	PLAY	MODE PIN NO.	REC	PLAY
IC121			IC6001			IC7601		
1	0	0	D	11.0	11.0	1	3.1	
2	1.7	1.5	G	1.5	1.5	2	0	
3	0	0	Q6202			3	3.1	
4	1.9	1.8	S	8.6	8.6	4	0	
5	1.5	1.5	D	0	0	5	0	
6	0	0	G	1.5	1.4	6	0	
7	1.5	1.5	Q6301			7	7.7	7.7
8	0	0	S	7.6	7.7	8	0	
9	0	0	D	11.0	11.0	9	0	
10	0	0	G	3.4	3.3	10	0	
11	0	0	Q6302			11	10.0	10.0
12	0	0	S	0	0	12	0	
13	3.0	3.0	D	0	0	13	0	
14	0	0	G	0	0	14	0	
15	3.0	3.0	Q6401			15	0	
16	1.5	1.5	S	0	0	16	0	
17	3.0	3.0	D	0	3.3	17	0	
18	0	0	G	3.3	3.2	18	0	
19	0	0	Q6303			19	11.0	11.0
20	0	0	S	7.6	7.8	20	0	
21	0	0	D	11.0	11.0	21	0	
22	0	0	G	3.2	3.1	22	0	
23	0	0	Q6402			23	0	
24	0	0	S	0	0	24	0	
IC171			D	3.1	3.1	25	0	
1	3.0	3.0	G	3.1	3.1	26	0	
2	0	0	Q6403			27	0	
3	3.0	3.0	E	0	0	28	0	
IC1001			C	0	0	29	0	
1	3.0	3.0	B	0.6	0.7	30	0	
2	0	3.0	Q6404			31	0	
3	0	3.0	S	0	0	32	0	
4	0	0	D	3.1	3.1	33	0	
5	0	0	G	3.1	3.1	34	0	
6	3.1	3.1	Q6501			35	0	
7	0	0	S	8.0	0	36	0	
8	3.0	0	D	10.9	11.0	37	0	
9	2.9	2.9	G	0	0	38	0	
10	3.0	1.9	E	-14.2	0	39	0	
11	0	0	C	0	0	40	0	
12	3.0	3.0	B	0	-14.9	41	0	
13	3.1	0.1	Q6503			42	0	
14	0.3	0.3	1	0	0	43	0	
15	3.0	3.1	2	-7.5	-7.5	44	0	
16	3.0	3.0	3	0	0	45	0	
17	3.0	3.0	4	0	0	46	0	
18	0	0	5	0	0	47	0	
19	0	0	6	-13.7	-14.9	48	0	
20	0	0	Q6701			49	0	
21	3.0	3.0	S	8.6	0	50	0	
22	3.0	1.1	D	11.0	11.0	51	0	
23	1.4	0	G	4.9	4.9	52	0	
24	1.3	1.4	Q6702			53	0	
25	0	2.1	S	9.8	9.8	54	0	
26	0	0	D	4.7	4.9	55	0	
27	3.0	3.0	G	0	0	56	0	
28	0	0	Q6703			57	0	
29	3.0	3.0	S	0	0	58	0	
30	3.0	3.0	D	4.9	4.9	59	0	
31	3.0	0	G	4.9	4.9	60	0	
32	0	0				61	0	
33	2.9	3.0				62	0	
34	3.0	3.0				63	0	
35	3.0	2.4				64	0	
36	0	0				IC6002		
37	0	0				1	0	
38	2.9	3.0				2	0	
39	3.0	0				3	0	
40	2.9	3.0				4	0	
41	3.1	3.0				5	0	
42	0	0				6	0	
43	0	0				7	0	
44	2.9	2.8				8	0	
45	0	0				9	0	
46	3.1	3.1				10	0	
47	1.5	1.5				11	0	
48	0	0				12	0	
49	0	0				13	0	
50	3.0	3.0				14	0	
51	0.5	0.5				15	0	
52	3.0	3.0				16	0	
53	0	0				17	0	
54	3.1	3.0				18	0	
55	3.0	3.0				19	0	
56	3.0	3.0				20	0	
57	3.0	3.0				21	0	
58	3.1	3.1				22	0	
59	3.1	3.1				23	0	
60	2.8	2.8				24	0	
61	0	0				25	0	
62	2.2	2.2				26	0	
63	3.1	3.0				27	0	
64	3.1	3.1				28	0	
65	0	0				29	0	
66	3.0	3.0				30	0	
67	3.0	3.0				31	0	

POWER SYSTEM BLOCK DIAGRAM



VIDEO SYSTEM BLOCK DIAGRAM





JVC

Victor Company of Japan, Limited
Camcorder Category 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.YF133)

PARTS LIST

SAFETY PRECAUTION

Parts identified by the \triangle symbol are critical for safety. Replace only with specified part numbers.

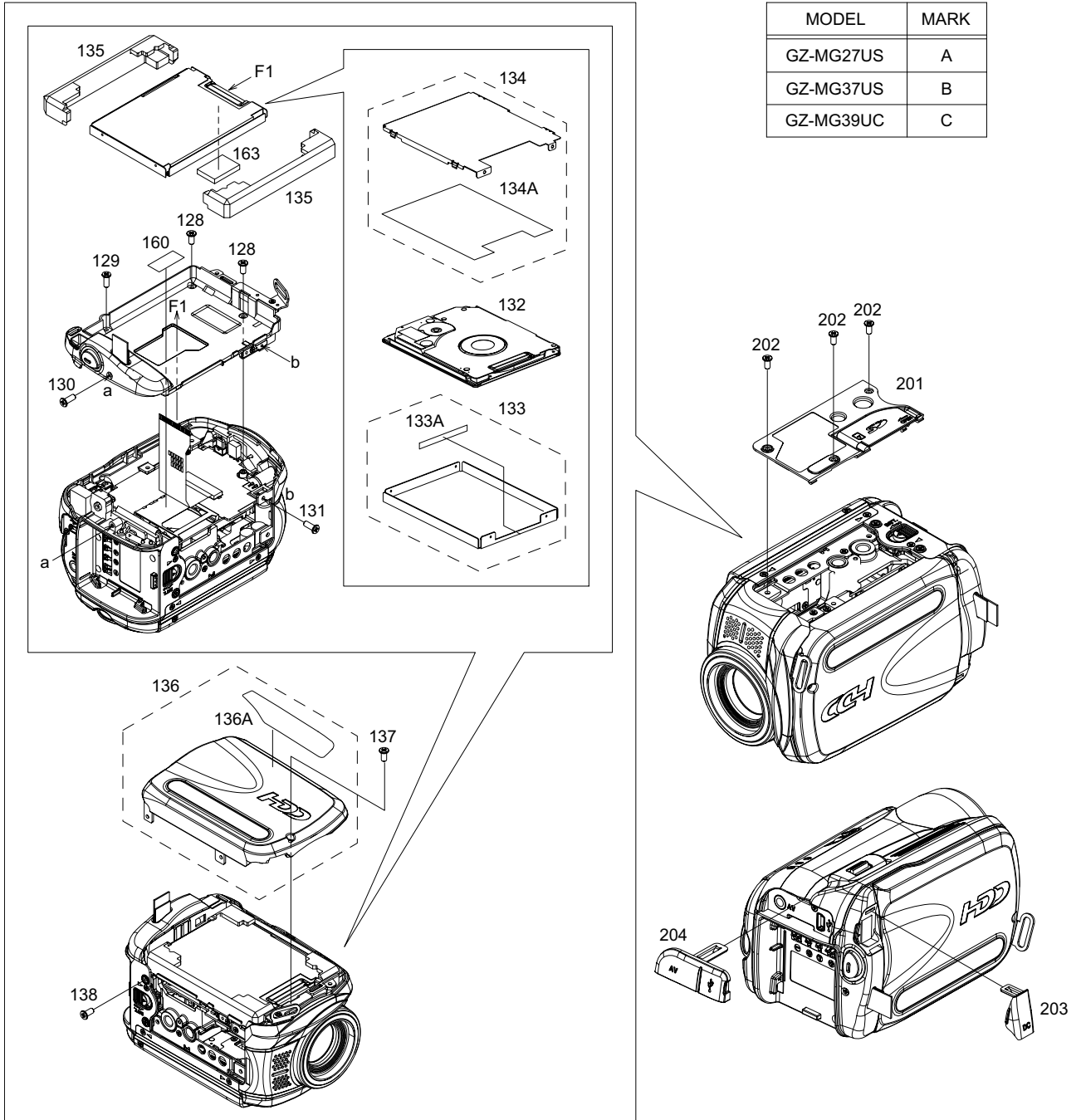
BEWARE OF BOGUS PARTS

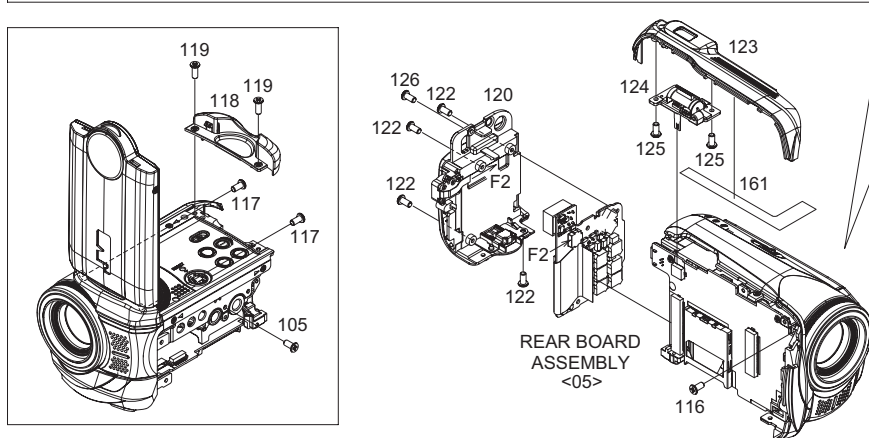
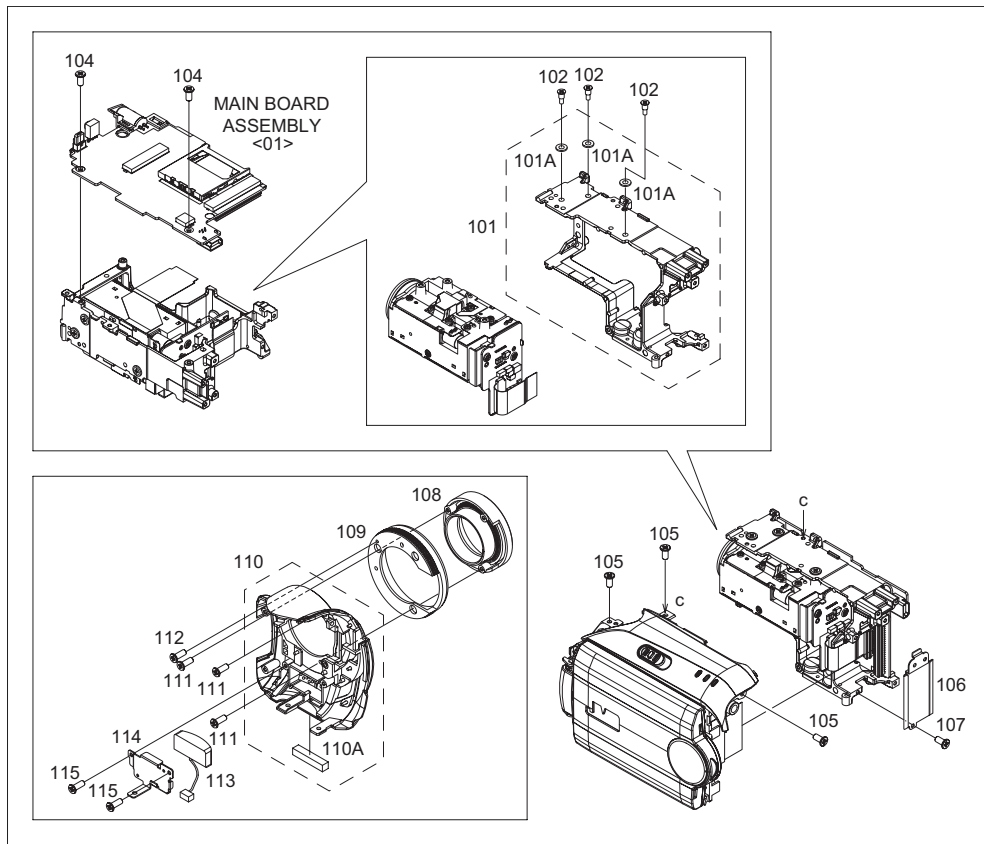
Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

1. EXPLODED VIEW

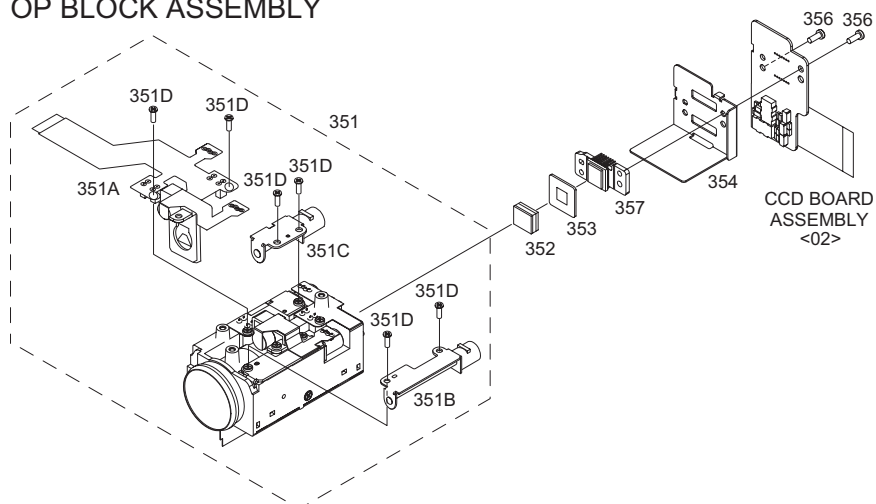
1.1 FINAL ASSEMBLY<M1>

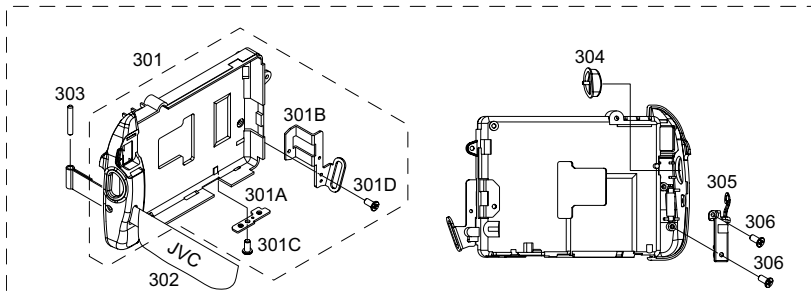
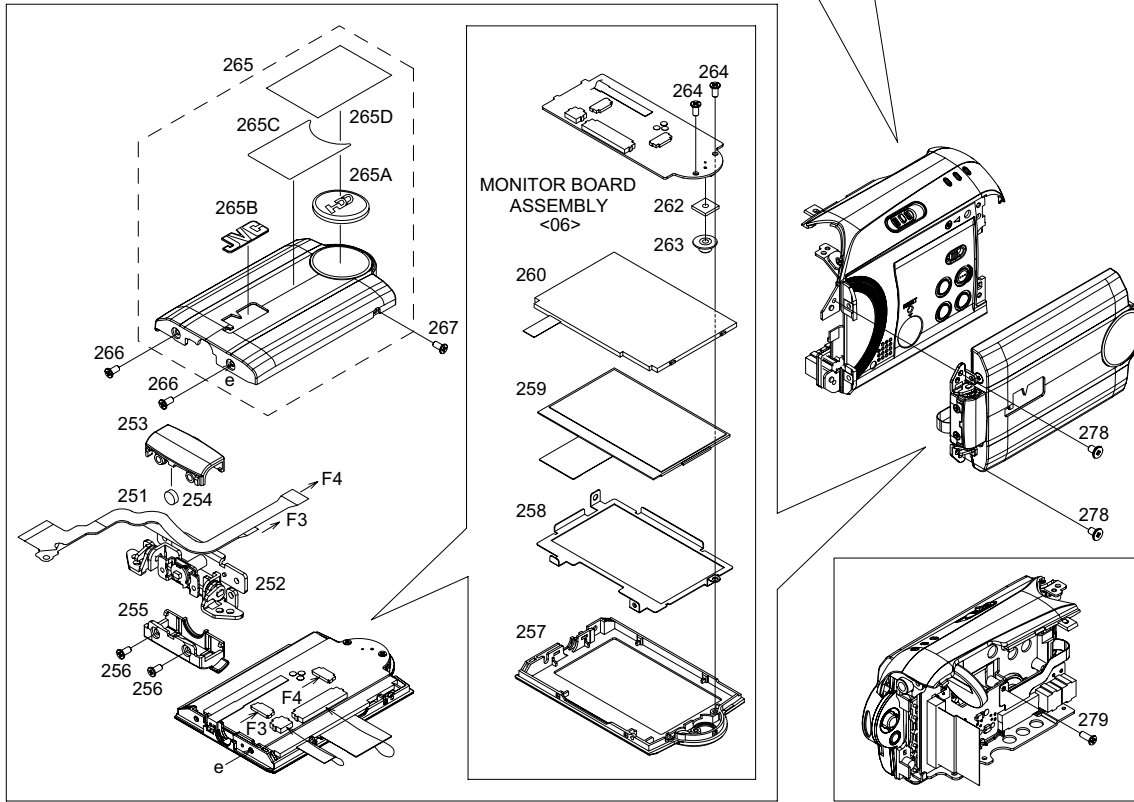
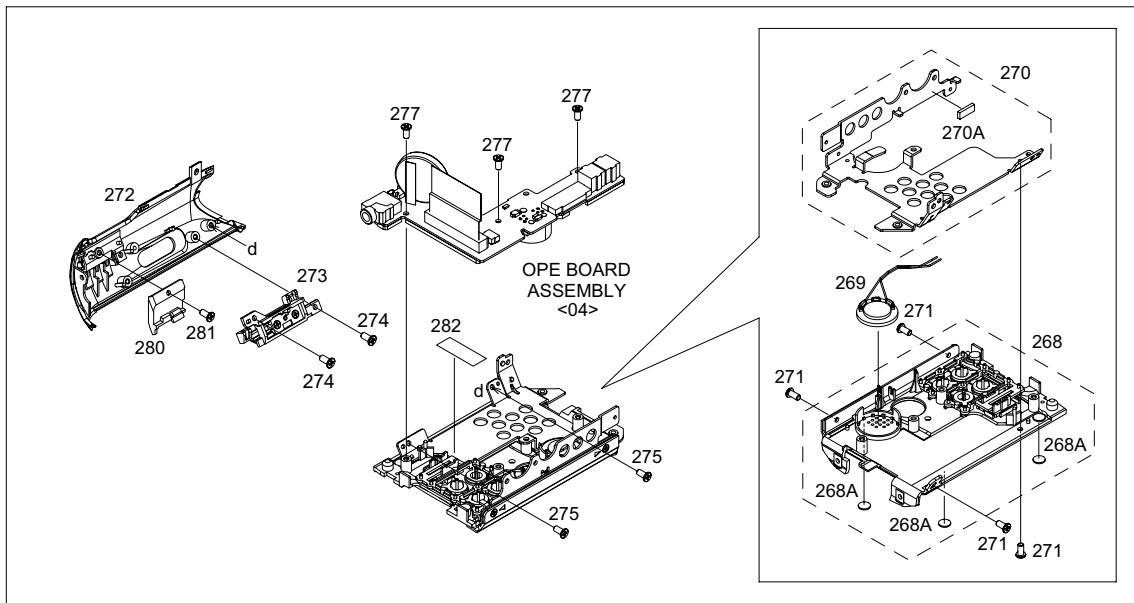
The instruction manual to be provided with this product will differ according to the destination.



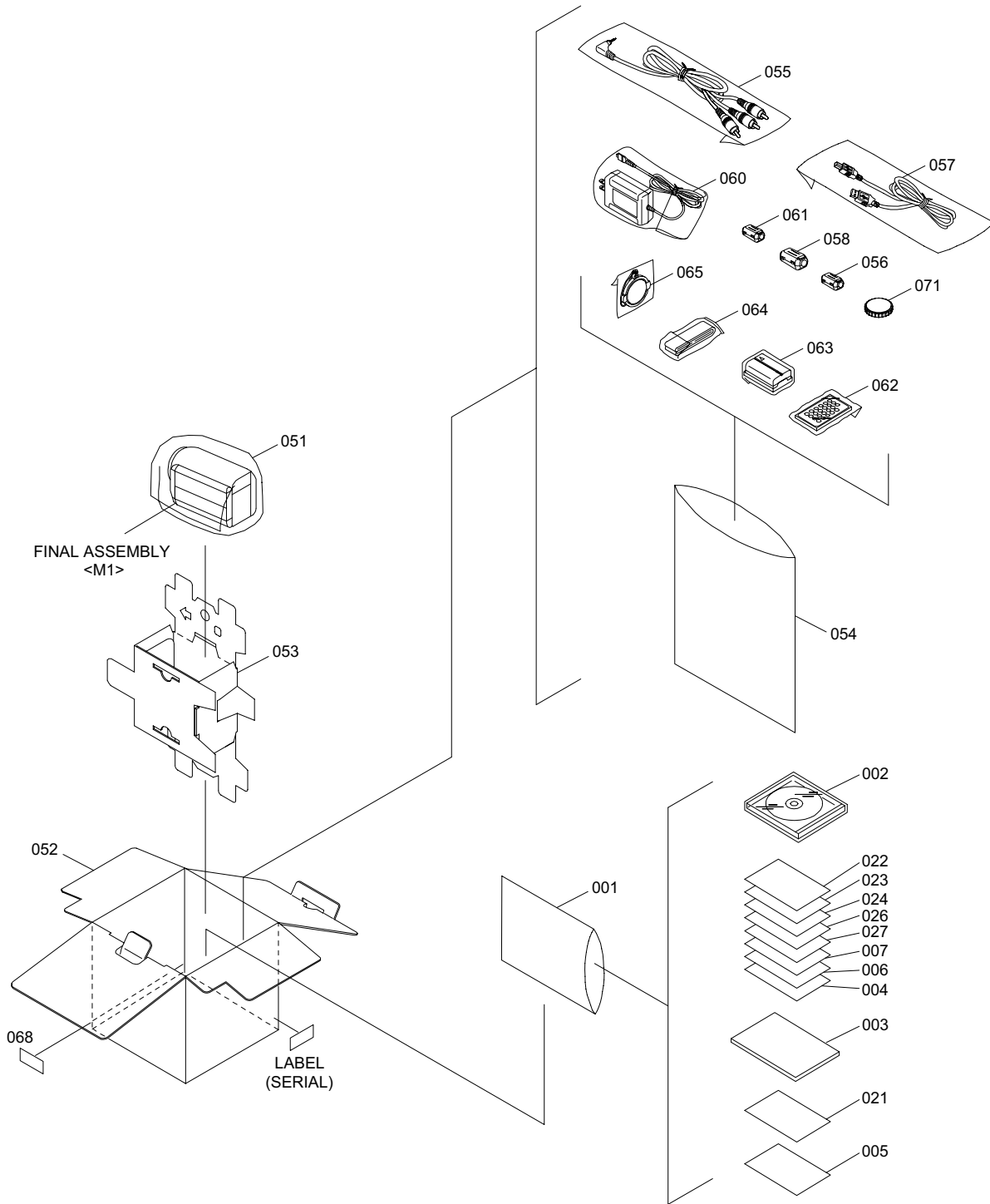


OP BLOCK ASSEMBLY





1.2 PACKING AND ACCESSORY ASSEMBLY <M5>



MODEL	MARK
GZ-MG27US	A
GZ-MG37US	B
GZ-MG39UC	C

2. PARTS LIST

FINAL ASSEMBLY <M1>

△ Symbol No.	Part No.	Part Name	Description	Local
	101	LY35263-001B	FRAME ASSY	
	101A	LY34799-002A	BUSH (x3)	
	102	LY30032-021A	SPECIAL SCREW FRM-OP(x3)	
	104	LY30031-0K7A	SPECIAL SCREW MAIN-FRM(x2)	
	105	LY30031-0K7A	SPECIAL SCREW UPPER-FRM(x4)	
	106	LY35256-001A	SHIELD(FRAME)	
	107	LY30031-0K7A	SPECIAL SCREW SHIELD-FRM	
	108	LY35262-001A	HOOD	
	109	LY35237-001B	RING	
	110	LY35228-001C	F.COVER ASSY	
	110A	LY30035-031A	SPACER(A)	
	111	LY30031-0L8B	SPECIAL SCREW FRONT-HOOD(x3)	
	112	LY30031-0K7A	SPECIAL SCREW FRONT-RING	
	113	LY35303-001A	MIC	
	114	LY35268-001A	BKT(MIC)	
	115	LY30031-0L8B	SPECIAL SCREW BKT(MIC-FR)(x2)	
	116	LY30031-0K7A	SPECIAL SCREW FRONT-FRM	
	117	LY30031-038A	SPECIAL SCREW UPPER-FRON(x2)	
	118	LY35215-001C	M.L.CASE ASSY	
	119	LY30031-0L8B	SPECIAL SCREW MLOCK-UPPE(x2)	
△	120	LY21491-001C	REAR UNIT	
	122	LY30031-0K7A	SPECIAL SCREW REAR-FRM(x4)	
	123	LY21485-001A	TOP COVER(ZOOM)	
	124	LY34990-001E	ZOOM UNIT	
	125	LY30031-0L8B	SPECIAL SCREW ZOOM-TOP(Z)(x2)	
	126	LY30031-0K7A	SPECIAL SCREW TOP(Z)-FRM	
	128	LY30031-0K7A	SPECIAL SCREW HCASE-FRM(x2)	
	129	LY30031-0L8B	SPECIAL SCREW HCASE-ZOOM	
	130	LY30031-0L8B	SPECIAL SCREW HCASE-REAR	
	131	LY30031-0K7A	SPECIAL SCREW FRONT-HCAS	
	132	QAL0885-001	HDD 20G	A
	132	QAL0885-002	HDD 30G	B,C
	133	LY35388-001B	BKT(HDD)U ASSY	
	133A	LY30035-033A	SPACER(A)	
	134	LY35243-001A	BKT(HDD)ASSY	
	134A	LY35244-001A	SHEET(HDD)	
	135	LY35245-001A	GEL (x2)	
	136	LY35246-003B	HDD COVER ASSY	
	136A	LY35312-001A	STICKER(HDD)	
	137	LY30031-0K7A	SPECIAL SCREW HCOV-HOOK	
	138	LY30031-0K7A	SPECIAL SCREW REAR(B-FRM)	
	160	LY34189-018A	GASCKET SD	
	161	LY45202-001A	SHIELD(ZOOM)	
	163	LY34189-020A	GASCKET FPC	
	201	LY35247-001B	B.COVER ASSY	
	202	LY30031-0K7A	SPECIAL SCREW BOTTOM(x3)	
	203	LY35239-001A	JACK COVER(DC)	
	204	LY35233-001A	JACK COVER(REAR)	
	250	UU06E3W07K	U.UNIT ASSY FOR JAPAN	A
	250	UU06E3W01A	U.UNIT ASSY FOR JAPAN	B,C
	251	QAL0806-001	FPC MONI-OPE	
	252	LY35075-001A	HINGE UNIT YEM	
	253	LY35219-001C	HINGE COVER(U)	
	254	LY43413-001A	P.C.MAGNET	
	255	LY35220-001C	HINGE COVER(L)	
	256	LY30031-0K7A	SPECIAL SCREW HCOV-HINGE(x2)	
	257	LY35213-001C	MONI.CASE ASSY	
	258	LY21475-001B	LCD BKT(WIDE) 16:9	
	259	QLD0417-001	LCD MODULE 16:9	
	260	QLL0178-002	BACK LIGHT 16:9	
	262	LY45193-001A	SPACER(CURSOL)	
	263	LY45166-001C	KNOB(CURSOL)	
	264	LY30031-0L8B	SPECIAL SCREW PWB-M.CASE(x2)	
	265	LY35221-017D	MONI.COVER ASSY	A
	265	LY35221-001D	MONI.COVER ASSY	B,C
	265A	LY45165-001A	MARK(HDD)	
	265B	LY45126-001B	JVC MARK	
	265C	LY35260-002A	STICKER	A
	265C	LY35260-001A	STICKER	B,C
	265D	LY45216-001A	PROTECT SHEET	
	266	LY30031-0K6A	SPECIAL SCREW MCOV-HINGE(x2)	
	267	LY30031-0K7A	SPECIAL SCREW MCOV-LBKT	
	268	LY21478-001D	U.CASE ASSY	
	268A	LY42350-001A	FOOT (x3)	

△ Symbol No.	Part No.	Part Name	Description	Local
	269	QAS0429-001	SPEAKER	
	270	LY35416-001A	BKT(UPPER)ASSY	
	270A	LY30035-039A	SPACER(A)	
	271	LY30031-0K7A	SPECIAL SCREW UC-BKT(U)(x4)	
	272	LY35234-001A	T.COVER(U) ASSY	
	273	LY35224-001C	POWER SW ASSY	
	274	LY30031-0L8B	SPECIAL SCREW POW-TOP(U)(x2)	
	275	LY30031-0L8B	SPECIAL SCREW BKT(U-TOP)(x2)	
	277	LY30031-0L8B	SPECIAL SCREW PWB-UPPER(x3)	
	278	LY30031-0K6A	SPECIAL SCREW HING-BKT(U)(x2)	
	279	LY30031-0L8B	SPECIAL SCREW FPC-UPPER	
	280	LY35236-001A	INTERRUPTER	
	281	LY30031-0L8B	SPECIAL SCREW INTER-TOP	
	282	LY45112-001A	HEAT SHEET	
	△ 300	CU06E301A	C(BELT)UNITASSY	FOR JAPAN
△	301	LY35238-001C	HDD CASE ASSY	
	301A	LY35022-201A	BKT(BOTTOM)	
	301B	LY35241-001A	HOOK(G.B)	
	301C	LY30031-0L6A	SPECIAL SCREW BKT(BTM)	
	301D	LY30031-0L6A	SPECIAL SCREW HOOK	
	302	LY21416-001B	GRIP BELT	
	303	LY34997-001A	SHAFT(G.B)	
	304	LY35240-001B	BUTTON(TRIG)	
	305	LY35242-001B	HOLDER(SHAFT)	
	306	LY30031-0L8B	SPECIAL SCREW HOLDER(SH)(x2)	
	351	LY35161-002A	OP BLOCK ASSY	
	351A	PTY35161-206	AUTO IRIS UNIT	
	351B	PTY35161-101	ZOOM MOTOR UNIT	
	351C	PTY35161-102	FOCUS MOTOR UNIT	
	351D	PTY35161-535	TAPPING SCREW (x6)	
	352	LY45144-001A	OPTICAL LPF	
	353	LY45175-001A	SHEET	
	354	LY35257-001A-ML	SHIELD CCD	JPN
	356	LY30031-0J7A	SPECIAL SCREW (x2)	
	357	LYH30667-001A	CCD BASE ASSY	

PACKING AND ACCESSORY ASSEMBLY <M5>

△ Symbol No.	Part No.	Part Name	Description	Local
	001	LY34452-001A	POLY BAG	DOCUMENT
	002	LY35273-002A-S	CD ROM ASSY	
△	003	LYT1533-001B	INST BOOK(EN)	(ENGLISH) A,B
△	003	LYT1533-002B	INST BOOK(FR)	(FRENCH) A,B
△	003	LYT1533-003B	INST BOOK(SP)	(SPANISH) A,B
△	003	LYT1548-001A	INST BOOK(EN)	(ENGLISH) C
△	003	LYT1548-002A	INST BOOK(FR)	(FRENCH) C
	004	LYT1534-001A	INST BOOK(SOFT.ENFRSP)	(SOFTENGLISH FRENCH SPANISH) A,B
	004	LYT1534-010A	INST BOOK(SOFT.ENFR)	(SOFT.ENGLISH FRENCH) C
	005	-----	WARRANTY CARD	BT-51005-9
	006	BT-51034-2	REGI. CARD	
	007	-----	WARRANTY CARD	BT-52006-2
	021	LY35385-001A	SHEET(ACC GUIDE)	A,B
	021	LY35385-004A	SHEET(ACC GUIDE)	C
	022	LYT1600-001A	SHEET(DVD.W.EN)	
	022	LYT1600-003A	SHEET(DVD.W.FR)	
	022	LYT1600-005A	SHEET(DVD.W.SP)	A,B
	022	LYT1601-005A	SHEET(DVD.M.SP)	A,B
	023	LYT1601-001A	SHEET(DVD.M.EN)	
	023	LYT1601-003A	SHEET(DVD.M.FR)	
	024	LYT1603-001A	SHEET(DEMO)	
	026	LYT1602-001A	SHEET(ATT.EN)	
	026	LYT1602-003A	SHEET(ATT.FR)	
	026	LYT1602-005A	SHEET(ATT.SP)	A,B
	027	LYT1607-001A	SHEET(ATT.)	
	051	LY30023-034A	POLY BAG	FOR JVM
	052	LY35251-003A	PACKING CASE	PRODUCTION
	053	LY21420-001A	CUSHION	
	054	QPA02503505P	POLY BAG	ACC. 25cm x 35cm
	055	QAM0507-001	A/V CABLE	
	056	QQR0918-004	CORE FILTER	AV
	057	QAM0719-001	USB CABLE	
	058	QQR0491-004	CORE FILTER	USB 1T
△	060	LY21103-001D	AC ADAPTER	AP-V14U

MODEL	MARK
GZ-MG27US	A
GZ-MG37US	B
GZ-MG39UC	C

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
△ 060	or LY21456-001A	AC ADAPTER	AP-V18U		Q3202	2SC4617/QR/-X	TRANSISTOR		
061	QQR0917-004	CORE FILTER	DC		Q3202	or BC847BT-X	TRANSISTOR		
062	LY21430-002A	REMOTE CTL UNIT	RM-V730US		Q3701	UMZ1N-W	PAIR TRANSISTOR		
△ 063	LY34647-002B	BATTERY PACK	BN-VF707U	A,B	Q3701	or PUMZ1-W	PAIR TRANSISTOR		
△ 063	LY34648-002A	BATTERY PACK	BN-VF714U	C	Q3701	or XP4601-W	PAIR TRANSISTOR		
064	LY21397-002A	SHOULDER STRAP			Q4001	2SC4617/RS/-X	TRANSISTOR		
065	LY34811-001B	HOOD CAP ASSY			Q4001	or BC847BT-X	TRANSISTOR		
068	LY45161-002A	LABEL			Q4001	or 2SD2216J/RS/-X	TRANSISTOR		
071	LY45189-001A	LENS PROTECTOR		C	Q7801	UMX1N-W	PAIR TRANSISTOR		

MAIN BOARD ASSEMBLY <01>

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
PW1	LYA10066-01E	MAIN BOARD ASSY							
IC121	NAL0035-001X	SHOCK SENSOR							
IC171	KSM-2003LN2E	IR DETECT UNIT							
IC1001	MN102H60GJD	IC(MICRO C ROM)	MASK						
IC1001	or MN102HF60GJD	IC(MICRO C ROM)	MP FLASH						
IC1002	RS5C314-X	IC							
IC1003	S-80827CENN-B-G-W	IC							
IC1004	SN74AHC1G08DC-X	IC(DIGITAL)							
IC1004	or 74AHC1G08GW-X	IC							
IC1004	or TC7SH08FU-X	IC(DIGITAL)							
IC1005	SN74AHC1G04DC-X	IC(DIGITAL)							
IC1005	or TC7SH04FU-X	IC(DIGITAL)							
IC1007	TC75S56FU-X	IC							
IC1007	or NJU7108F3-X	IC							
IC2201	AK4660VQ	IC	48P0.5						
IC2201	or AK4664VQ	IC							
IC3001	UPD61152F1-A03	IC(MICRO C ROM)							
IC3002	K4S28323LF-HN75	IC	128M 32BIT						
IC3201	JCP8075	IC							
IC3202	MB90099PFV139EX	IC(MICRO C ROM)							
IC3204	R1100D251C-X	IC							
IC3701	BH7612FV-X	IC							
IC4001	SIP1280ISD-DVA3	IC							
IC4001	or SIP1280ISD-DVA2	IC							
IC4201	NN12072A-X	IC	TG/CDS/AD						
IC4301	SP32J55BF112D03	IC(MICRO C ROM)	4M FLASH						
IC4302	39VF1674CB3KF03	IC(MICRO C ROM)	2M FLASH						
IC4303	K4S56323LF-HN75	IC	256M FBGA						
IC4304	R1114N251B-X	IC	SREG2.5V						
IC4401	JCY0231	IC	STD SELL						
IC4403	MM3142FN-X	IC	2.5V REG						
IC4501	JCY0209-2	IC	PREPROCESS						
IC4502	M95320-WDW6-X	IC	EEPROM						
IC4901	JCY0223-X	IC							
IC8301	JCY0225	IC	EPSON						
IC8302	TPS2055AD-X	IC	USB POWER						
IC8303	R1114N181B-X	IC	SREG 1.8V						
Q171	RPM-22PB	PHOTO TRANSISTOR							
Q421	UMZ1N-W	PAIR TRANSISTOR	LIGHT LED						
Q421	or PUMZ1-W	PAIR TRANSISTOR	LIGHT LED						
Q421	or XP4601-W	PAIR TRANSISTOR	LIGHT LED						
Q422	DTC143XE-X	DIGI TRANSISTOR	LIGHT LED						
Q422	or UN921FJ-X	DIGI TRANSISTOR	LIGHT LED						
Q422	or KRC419E-X	DIGI TRANSISTOR	LIGHT LED						
Q422	or RT1N432U-X	DIGI TRANSISTOR	LIGHT LED						
Q1001	DTC124EE-X	DIGI TRANSISTOR							
Q1002	2SC4617/RS/-X	TRANSISTOR							
Q1002	or 2SD2216J/RS/-X	TRANSISTOR							
Q1002	or BC847BT-X	TRANSISTOR							
Q1003	DTA124EE-X	DIGI TRANSISTOR							
Q1004	2SC4617/RS/-X	TRANSISTOR							
Q1004	or 2SD2216J/RS/-X	TRANSISTOR							
Q1004	or BC847BT-X	TRANSISTOR							
Q1005	2SJ347-X	MOS FET							
Q1006	DTA124EE-X	DIGI TRANSISTOR							
Q2202	UMX18N-W	PAIR TRANSISTOR							
Q2401	2SC4617/QR/-X	TRANSISTOR							
Q2401	or BC847BT-X	TRANSISTOR							
Q2403	2SC4617/QR/-X	TRANSISTOR							
Q2403	or BC847BT-X	TRANSISTOR							
Q3202	2SC4617/QR/-X	TRANSISTOR							
Q3202	or BC847BT-X	TRANSISTOR							
Q3701	UMZ1N-W	PAIR TRANSISTOR							
Q3701	or PUMZ1-W	PAIR TRANSISTOR							
Q3701	or XP4601-W	PAIR TRANSISTOR							
Q4001	2SC4617/RS/-X	TRANSISTOR							
Q4001	or BC847BT-X	TRANSISTOR							
Q4001	or 2SD2216J/RS/-X	TRANSISTOR							
Q7801	UMX1N-W	PAIR TRANSISTOR							
Q7801	or BC847S-X	PAIR TRANSISTOR							
Q7801	or PUMX1-W	PAIR TRANSISTOR							
Q7801	or XP4501-W	PAIR TRANSISTOR							
Q7802	UMX1N-W	PAIR TRANSISTOR							
Q7802	or BC847S-X	PAIR TRANSISTOR							
Q7802	or PUMX1-W	PAIR TRANSISTOR							
Q7802	or XP4501-W	PAIR TRANSISTOR							
Q7803	UMX1N-W	PAIR TRANSISTOR							
Q7803	or BC847S-X	PAIR TRANSISTOR							
Q7803	or PUMX1-W	PAIR TRANSISTOR							
Q7803	or XP4501-W	PAIR TRANSISTOR							
Q8303	EMD2-W	PAIR TRANSISTOR							
△ D191	RB715W-X	SB DIODE							
D421	NSPW500CS/COTU/	LED	LIGHT LED						
D1001	DA221-X	SI DIODE							
D1002	1SS376-X	SI DIODE							
D3701	UMZ6.8EN-W	Z DIODE							
D4003	1SS376-X	SI DIODE							
D4201	1SS355-X	SI DIODE							
D4201	or MA111-X	SI DIODE							
D4201	or 1SS352-X	SI DIODE							
C111	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M						
C122	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C141	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M						
C142	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C171	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M						
C172	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M						
C1001	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C1004	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C1005	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M						
C1006	NDCA1HJ-7R0W	C CAPACITOR	7pF 50V J						
C1008	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1013	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1014	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1015	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1016	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1017	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1018	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1020	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1025	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C1026	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C1031	NCF31AZ-105X	C CAPACITOR	1uF 10V Z						
C1034	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1043	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1044	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1045	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K						
C1046	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C2202	NCB30JK-105X	C CAPACITOR	1uF 6.3V K						
C2203	NCB30JK-105X	C CAPACITOR	1uF 6.3V K						
C2204	NCB30JK-105X	C CAPACITOR	1uF 6.3V K						
C2205	NCB30JK-105X	C CAPACITOR	1uF 6.3V K						
C2209	NCB30JK-105X	C CAPACITOR	1uF 6.3V K						
C2210	NCB30JK-105X	C CAPACITOR	1uF 6.3V K						
C2217	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C2218	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C2223	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C2224	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C2401	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M						
C2402	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M						
C2403	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M						
C2404	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M						
C2405	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K						
C2406	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M						
C2603	NCBA1CK-223W	C CAPACITOR	0.022uF 16V K						
C2604	NCBA1CK-223W	C CAPACITOR	0.022uF 16V K						
C2605	NCBA1EK-472W	C CAPACITOR	4700pF 25V K						
C2606	NCBA1EK-472W	C CAPACITOR	4700pF 25V K						

MODEL	MARK
GZ-MG27US	A
GZ-MG37US	B
GZ-MG39UC	C

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C2611	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4205	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2612	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4206	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2613	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4208	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2623	NDCA1HJ-100W	C CAPACITOR	10pF 50V J		C4209	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C2624	NDCA1HJ-100W	C CAPACITOR	10pF 50V J		C4210	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C2655	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4211	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C2656	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4212	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3004	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M		C4213	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3005	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4214	NDCA1HJ-8R0W	C CAPACITOR	8pF 50V J	
C3006	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4215	NDCA1HJ-180W	C CAPACITOR	18pF 50V J	
C3007	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4216	NCB11CK-475X	C CAPACITOR	4.7uF 16V K	
C3008	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4217	NBP21CM-106X	TA E CAPACITOR	10uF 16V M	
C3009	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4218	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3010	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4219	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3011	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4220	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3012	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4221	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3013	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4224	NBE20JM-476X	TA E CAPACITOR	47uF 6.3V M	
C3014	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4225	NDCA1HJ-100W	C CAPACITOR	10pF 50V J	
C3015	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4301	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3016	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4302	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3019	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M		C4303	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3020	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4305	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3021	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4306	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C3022	NCBA1HK-102W	C CAPACITOR	1000pF 50V K		C4307	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3023	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4308	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3024	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4309	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3201	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4310	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3202	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4351	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3203	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4352	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3204	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4401	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3205	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4402	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3206	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4403	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3207	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4404	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3208	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4405	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3209	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4406	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3210	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4407	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3211	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4411	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3212	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		C4412	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3216	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4501	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3217	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4503	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3218	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4504	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3219	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4505	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3220	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M		C4506	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3224	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4507	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3225	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4510	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C3227	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4511	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C3701	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M		C4513	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3702	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4514	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3703	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4517	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3704	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4518	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C3705	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4519	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4002	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M		C4521	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4003	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M		C4522	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4004	NBE20GM-476X	TA E CAPACITOR	47uF 4V M		C4523	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4010	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4524	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C4011	NCBA1HK-102W	C CAPACITOR	1000pF 50V K		C4525	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C4012	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4527	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4013	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4528	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4014	NCBA1HK-102W	C CAPACITOR	1000pF 50V K		C4529	NCB20JM-475X	C CAPACITOR	4.7uF 6.3V M	
C4015	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4532	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4016	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4533	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4017	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4534	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4018	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4902	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4019	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4903	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C4020	NCBA1HK-102W	C CAPACITOR	1000pF 50V K		C4905	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4021	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4906	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4022	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4907	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4023	NCBA1HK-102W	C CAPACITOR	1000pF 50V K		C4908	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4024	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4909	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C4025	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4911	NDCA1HJ-101W	C CAPACITOR	100pF 50V J	
C4026	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4912	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4027	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4913	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4032	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		C4914	NDCA1HJ-680W	C CAPACITOR	68pF 50V J	
C4034	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		C4915	NDCA1HJ-121W	C CAPACITOR	120pF 50V J	
C4201	NCB11EK-105X	C CAPACITOR	1uF 25V K		C4916	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4202	NCB31EK-104X	C CAPACITOR	0.1uF 25V K		C4921	NCFA1AZ-474W	C CAPACITOR	0.47uF 10V Z	
C4203	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4922	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C4204	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		C4923	NCB30JK-474X	C CAPACITOR	0.47uF 6.3V K	

MODEL	MARK
GZ-MG27US	A
GZ-MG37US	B
GZ-MG39UC	C

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C4924	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		R1016	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
C4925	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		R1017	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C4926	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1018	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C4927	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		R1019	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C4932	NBE21AM-106X	TA E CAPACITOR	10uF 10V M		R1020	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C4935	NBE21AM-106X	TA E CAPACITOR	10uF 10V M		R1022	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C4936	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1023	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C4937	NDCA1HJ-101W	C CAPACITOR	100pF 50V J		R1024	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C7802	NCB21CK-105X	C CAPACITOR	1uF 16V K		R1025	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C7803	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		R1028	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C7804	NCB21CK-105X	C CAPACITOR	1uF 16V K		R1029	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C7805	NCB21CK-105X	C CAPACITOR	1uF 16V K		R1030	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C7806	NCB21CK-105X	C CAPACITOR	1uF 16V K		R1031	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C7852	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K		R1037	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C8301	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1043	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8302	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1045	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C8303	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1051	NRSA6AJ-272W	MG RESISTOR	2.7kΩ 1/16W J	
C8304	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1052	NRSA6AJ-183W	MG RESISTOR	18kΩ 1/16W J	
C8305	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1053	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
C8306	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1054	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
C8307	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1055	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
C8308	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1056	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
C8309	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1057	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8310	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1058	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8312	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1059	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8314	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1060	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8316	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1061	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8318	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1062	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8319	NDCA1HJ-7R0W	C CAPACITOR	7pF 50V J		R1063	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
C8320	NDCA1HJ-7R0W	C CAPACITOR	7pF 50V J		R1064	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C8322	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1065	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C8323	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1066	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
C8324	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1068	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8325	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1069	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8327	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1070	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8329	NCB31AK-105X	C CAPACITOR	1uF 10V K		R1071	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8330	NBE41AM-476X	TA E CAPACITOR	47uF 10V M		R1072	NRSA6AJ-823W	MG RESISTOR	82kΩ 1/16W J	
C8331	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K		R1073	NRSA6AJ-623W	MG RESISTOR	62kΩ 1/16W J	
C8333	NCB31AK-105X	C CAPACITOR	1uF 10V K		R1074	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
C8334	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		R1075	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8335	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		R1076	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
C8337	NCB30JK-105X	C CAPACITOR	1uF 6.3V K		R1077	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
C8339	NCB31AK-105X	C CAPACITOR	1uF 10V K		R1082	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
					R1083	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R101	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R1084	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R141	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R1085	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R142	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R1086	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R143	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R2202	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R144	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R2203	NRSA6AJ-393W	MG RESISTOR	39kΩ 1/16W J	
R145	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R2204	NRSA6AJ-154W	MG RESISTOR	150kΩ 1/16W J	
R146	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R2206	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R147	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R2207	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J	
R148	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J		R2208	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R149	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J		R2209	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R150	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J		R2210	NRSA6AJ-821W	MG RESISTOR	820Ω 1/16W J	
R151	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J		R2211	NRSA6AJ-821W	MG RESISTOR	820Ω 1/16W J	
R167	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R2212	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω 1/16W J	
R169	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R2213	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω 1/16W J	
R170	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R2217	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R171	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R2233	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
R172	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J		R2234	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J	
△ R191	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R2235	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J	
R196	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R2241	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R197	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R2401	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R198	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R2402	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R421	NRSA6AJ-152W	MG RESISTOR	1.5kΩ 1/16W J		R2403	NRSA6AJ-183W	MG RESISTOR	18kΩ 1/16W J	
R422	NRSA6AJ-182W	MG RESISTOR	1.8kΩ 1/16W J		R2407	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R423	NRSA6AJ-391W	MG RESISTOR	390Ω 1/16W J		R2601	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R424	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J		R2602	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R1001	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J		R2607	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R1003	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J		R2608	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J	
R1004	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J		R2609	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R1005	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J		R2610	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J	
R1006	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J		R3001	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1007	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J		R3002	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1008	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J		R3003	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1009	NRSA6AJ-681W	MG RESISTOR	680Ω 1/16W J		R3004	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R1010	NRSA6AJ-221W	MG RESISTOR	220Ω 1/16W J		R3007	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	

MODEL	MARK
GZ-MG27US	A
GZ-MG37US	B
GZ-MG39UC	C

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R3008	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4034	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3009	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4035	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3012	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4036	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3013	NRSA6AJ-271W	MG RESISTOR	270Ω 1/16W J		R4037	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3014	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4038	NRSA6AJ-820W	MG RESISTOR	82Ω 1/16W J	
R3016	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4039	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R3017	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4042	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3022	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4043	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R3023	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4048	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3024	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4049	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3025	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4050	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3026	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4051	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3027	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4052	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3028	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4053	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3029	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J		R4054	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3030	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J		R4055	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3031	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J		R4056	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3032	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4057	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3033	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J		R4058	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3034	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J		R4059	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3035	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4060	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3036	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4061	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3039	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4062	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3040	NRSA6AJ-271W	MG RESISTOR	270Ω 1/16W J		R4063	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3041	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4064	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3042	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J		R4065	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3043	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J		R4066	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3044	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J		R4067	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3045	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J		R4068	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3046	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4069	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3201	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4070	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3202	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4071	NRSA6AJ-181W	MG RESISTOR	180Ω 1/16W J	
R3203	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4072	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3204	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4073	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3205	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4074	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3206	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4075	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3207	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4076	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3208	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R4077	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3209	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4078	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3210	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4079	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3211	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4081	NRSA6AJ-331W	MG RESISTOR	330Ω 1/16W J	
R3212	NRSA6AD-183W	MG RESISTOR	18kΩ 1/16W D		R4083	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3213	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D		R4084	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J	
R3214	NRSA6AD-272W	MG RESISTOR	2.7kΩ 1/16W D		R4086	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R3215	NRSA6AD-272W	MG RESISTOR	2.7kΩ 1/16W D		R4087	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3216	NRSA6AD-821W	MG RESISTOR	820Ω 1/16W D		R4088	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3217	NRSA6AD-821W	MG RESISTOR	820Ω 1/16W D		R4201	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R3221	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4204	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R3222	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4205	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R3223	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R4206	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J	
R3224	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J		R4207	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R3701	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4208	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R3702	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4209	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J	
R3703	NRSA6AD-680W	MG RESISTOR	68Ω 1/16W D		R4210	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R3708	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4211	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R3709	NRSA6AJ-122W	MG RESISTOR	1.2kΩ 1/16W J		R4212	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R3710	NRSA6AJ-222W	MG RESISTOR	2.2kΩ 1/16W J		R4214	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4001	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R4219	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4002	NRSA6AJ-332W	MG RESISTOR	3.3kΩ 1/16W J		R4220	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4003	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4221	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4005	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4222	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4006	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4223	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4007	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4224	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4008	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4225	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4015	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4226	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4016	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J		R4227	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4017	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R4301	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R4018	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4413	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4019	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4414	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4020	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4415	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4021	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4416	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4023	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4418	NRSA6AJ-470W	MG RESISTOR	47Ω 1/16W J	
R4025	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4422	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R4026	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R4424	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R4027	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4425	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4030	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R4501	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4031	NRSA6AJ-221W	MG RESISTOR	220Ω 1/16W J		R4502	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J	
R4032	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R4503	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J	

MODEL	MARK
GZ-MG27US	A
GZ-MG37US	B
GZ-MG39UC	C

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R4504	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J		R7815	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D	
R4505	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J		R7817	NRSA6AJ-682W	MG RESISTOR	6.8kΩ 1/16W J	
R4506	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J		R7851	NRSA6AD-333W	MG RESISTOR	33kΩ 1/16W D	
R4507	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J		R7853	NRSA6AD-363W	MG RESISTOR	36kΩ 1/16W D	
R4508	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J		R7854	NRSA6AD-333W	MG RESISTOR	33kΩ 1/16W D	
R4510	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R7856	NRSA6AD-363W	MG RESISTOR	36kΩ 1/16W D	
R4511	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R7857	NRSA6AD-333W	MG RESISTOR	33kΩ 1/16W D	
R4513	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J		R7859	NRSA6AD-363W	MG RESISTOR	36kΩ 1/16W D	
R4514	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J		R8301	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4515	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J		R8302	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4524	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8303	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4525	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8304	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4527	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R8305	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4529	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8306	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4530	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R8307	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4531	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J		R8308	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4532	NRSA6AJ-223W	MG RESISTOR	22kΩ 1/16W J		R8309	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4533	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J		R8310	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4534	NRSA6AJ-393W	MG RESISTOR	39kΩ 1/16W J		R8311	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4535	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8312	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4536	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J		R8313	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4537	NRSA6AJ-100W	MG RESISTOR	10Ω 1/16W J		R8314	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4541	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J		R8315	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4542	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R8316	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4550	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J		R8317	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4551	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J		R8318	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4554	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8319	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4555	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8320	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4556	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8321	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4558	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J		R8322	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4563	NRSA6AJ-152W	MG RESISTOR	1.5kΩ 1/16W J		R8323	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4569	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8324	NRSA6AJ-820W	MG RESISTOR	82Ω 1/16W J	
R4571	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R8325	NRSA6AJ-220W	MG RESISTOR	22Ω 1/16W J	
R4579	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8326	NRSA6AJ-820W	MG RESISTOR	82Ω 1/16W J	
R4580	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R8327	NRSA6AJ-820W	MG RESISTOR	82Ω 1/16W J	
R4581	NRSA6AJ-331W	MG RESISTOR	330Ω 1/16W J		R8328	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4582	NRSA6AJ-331W	MG RESISTOR	330Ω 1/16W J		R8329	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4583	NRSA6AJ-331W	MG RESISTOR	330Ω 1/16W J		R8330	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4585	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R8331	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4587	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R8332	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4588	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R8333	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4903	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J		R8334	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4904	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R8335	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4905	NRSA6AJ-153W	MG RESISTOR	15kΩ 1/16W J		R8336	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R4906	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J		R8337	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R4907	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J		R8338	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4908	NRSA6AJ-472W	MG RESISTOR	4.7kΩ 1/16W J		R8340	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4909	NRSA6AJ-105W	MG RESISTOR	1MΩ 1/16W J		R8341	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R4910	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8342	NRVA6AD-622W	CMF RESISTOR	6.2kΩ 1/16W D	
R4911	NRSA6AJ-101W	MG RESISTOR	100Ω 1/16W J		R8343	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4916	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R8344	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4917	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R8348	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4919	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R8349	NRSA6AJ-330W	MG RESISTOR	33Ω 1/16W J	
R4920	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R8350	NRSA6AJ-121W	MG RESISTOR	120Ω 1/16W J	
R4923	NRSA6AJ-122W	MG RESISTOR	1.2kΩ 1/16W J		R8351	NRSA6AJ-102W	MG RESISTOR	1kΩ 1/16W J	
R4924	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J		R8352	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J	
R4925	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J		R8353	NRSA6AJ-562W	MG RESISTOR	5.6kΩ 1/16W J	
R4926	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J		R8354	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4927	NRSA6AJ-564W	MG RESISTOR	560kΩ 1/16W J		R8355	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4931	NRSA6AJ-271W	MG RESISTOR	270Ω 1/16W J		R8356	NRSA6AJ-473W	MG RESISTOR	47kΩ 1/16W J	
R4944	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R8357	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4948	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J		R8359	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4949	NRSA6AJ-562W	MG RESISTOR	5.6kΩ 1/16W J		R8364	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4950	NRSA6AJ-123W	MG RESISTOR	12kΩ 1/16W J		R8365	NRSA6AJ-0R0W	MG RESISTOR	0Ω 1/16W J	
R4951	NRSA6AJ-103W	MG RESISTOR	10kΩ 1/16W J		R8367	NRSA6AJ-104W	MG RESISTOR	100kΩ 1/16W J	
R4993	NRSA6AJ-471W	MG RESISTOR	470Ω 1/16W J		RA3001	NRZ0034-181W	NET RESISTOR	180Ω 1/32W J x4	
R7801	NRSA6AJ-333W	MG RESISTOR	33kΩ 1/16W J		RA3002	NRZ0034-181W	NET RESISTOR	180Ω 1/32W J x4	
R7802	NRSA6AJ-822W	MG RESISTOR	8.2kΩ 1/16W J		RA3201	NRZ0034-100W	NET RESISTOR	10Ω 1/32W J x4	
R7803	NRSA6AD-621W	MG RESISTOR	620Ω 1/16W D		RA3202	NRZ0034-100W	NET RESISTOR	10Ω 1/32W J x4	
R7804	NRSA6AD-222W	MG RESISTOR	2.2kΩ 1/16W D		RA4001	NRZ0034-221W	NET RESISTOR	220Ω 1/32W J x4	
R7805	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D		RA4002	NRZ0034-221W	NET RESISTOR	220Ω 1/32W J x4	
R7807	NRSA6AJ-682W	MG RESISTOR	6.8kΩ 1/16W J		RA4003	NRZ0034-473W	NET RESISTOR	47kΩ 1/32W J x4	
R7808	NRSA6AD-621W	MG RESISTOR	620Ω 1/16W D		RA4004	NRZ0034-473W	NET RESISTOR	47kΩ 1/32W J x4	
R7809	NRSA6AD-222W	MG RESISTOR	2.2kΩ 1/16W D		RA4301	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J x4	
R7810	NRSA6AD-123W	MG RESISTOR	12kΩ 1/16W D		RA4302	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J x4	
R7812	NRSA6AJ-682W	MG RESISTOR	6.8kΩ 1/16W J		RA4303	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J x4	
R7813	NRSA6AD-621W	MG RESISTOR	620Ω 1/16W D		RA4304	NRZ0034-104W	NET RESISTOR	100kΩ 1/32W J x4	
R7814	NRSA6AD-222W	MG RESISTOR	2.2kΩ 1/16W D						

MODEL	MARK
GZ-MG27US	A
GZ-MG37US	B
GZ-MG39UC	C

△ Symbol No.	Part No.	Part Name	Description	Local
L111	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L121	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L131	NQR0506-002X	EMI FILTER		
L141	NQR0129-002X	FERRITE BEADS		
L161	NQL38DK-100X	P COIL	10uH K	
L171	NQR0129-002X	FERRITE BEADS		
L1001	NQR0129-002X	FERRITE BEADS		
L1002	NQLC32M-100X	COIL	10uH M	
L2401	NQLC32M-100X	COIL	10uH M	
L2402	NQLC32M-100X	COIL	10uH M	
L2601	NQR0269-013X	FERRITE BEADS		
L2602	NQR0269-013X	FERRITE BEADS		
L2603	NQR0269-013X	FERRITE BEADS		
L3001	NQR0129-002X	FERRITE BEADS		
L3002	NQR0154-003X	FERRITE CORE		
L3005	NQR0006-001X	FERRITE BEADS		
L3007	NQR0129-002X	FERRITE BEADS		
L3201	NQR0129-002X	FERRITE BEADS		
L3203	NQR0129-002X	FERRITE BEADS		
L3206	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L3701	NQL38DK-100X	P COIL	10uH K	
L4003	NQR0129-002X	FERRITE BEADS		
L4004	NQR0006-001X	FERRITE BEADS		
L4005	NQR0154-003X	FERRITE CORE		
L4008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L4201	NQR0006-001X	FERRITE BEADS		
L4202	NQL315K-220X	COIL	22uH K	
L4203	NQL315K-220X	COIL	22uH K	
L4204	NQL315K-220X	COIL	22uH K	
L4205	NQLC32M-100X	COIL	10uH M	
L4301	NQR0129-002X	FERRITE BEADS		
L4303	NQR0154-003X	FERRITE CORE		
L4401	NQR0006-001X	FERRITE BEADS		
L4402	NQR0006-001X	FERRITE BEADS		
L4501	NQR0006-001X	FERRITE BEADS		
L4502	NQR0006-001X	FERRITE BEADS		
L4503	NQR0006-001X	FERRITE BEADS		
L4505	NQR0006-001X	FERRITE BEADS		
L4507	NQR0006-001X	FERRITE BEADS		
L4901	NQR0129-002X	FERRITE BEADS		
L4902	NQL38DK-100X	P COIL	10uH K	
L4903	NQL38DK-100X	P COIL	10uH K	
L4904	NQL38DK-100X	P COIL	10uH K	
L7801	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L7851	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L8301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L8302	NQR0006-001X	FERRITE BEADS		
L8303	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L8304	NQR0006-001X	FERRITE BEADS		
L8305	NQR0129-002X	FERRITE BEADS		
CN101	QGF0547C3-50X	CONNECTOR	OPE FFC/FPC (1-50)	
CN102	QGF0508F3-40X	CONNECTOR	KIN HDD FFC/FPC (1-40)	
CN103	QGF0508F3-53X	CONNECTOR	KIN REAR FFC/FPC (1-53)	
CN104	QGF0534F2-06X	CONNECTOR	KIN ZOOM FFC/FPC (1-6)	
CN105	QGF0547C3-24X	CONNECTOR	CCD FFC/FPC (1-24)	
CN106	QGF0549C2-26W	CONNECTOR	KIN OP FFC/FPC (1-26)	
CN107	QGA1001F1-04X	CONNECTOR	INT MIC W-B (1-4)	
CN110	QGB0512L1-30X	CONNECTOR	JIG B-B (1-30)	
CN111	NNZ0156-001X	SD CARD CONNE	SD	
J101	QNZ0847-001	USB CONNECTOR	AB USB	
TP1	NNZ0163-001X	EARTH TERMINAL		
TP2	NNZ0163-001X	EARTH TERMINAL		
TP3	NNZ0163-001X	EARTH TERMINAL		
X1001	NAX0784-001X	C RESONATOR		
X1002	NAX0564-001X	CRYSTAL	32.768kHz	
X4001	NAX0710-001X	CXO		
X4201	NAX0879-001X	CRYSTAL	36MHZ XTAL	
X8301	NAX0713-001X	CRYSTAL	24.000MHz	
HD1	LY35255-001A-ML	HOLDER(W.B)	W.B.HOLD	
HD2	LY35258-001A-ML	LED HOLDER (1)	LED HOLD1	
HD3	LY35259-001A-ML	LED HOLDER (2)	LED HOLD2	
OT1	QAL0807-001	FPC	MAIN-HDD	
OT2	LY30035-025B	SPACER(A)		
OT3	LY30035-036A	SPACER(A)		
SD1	LY45207-001A	SHIELD SHEET	SD	

CCD BOARD ASSEMBLY <02>

△ Symbol No.	Part No.	Part Name	Description	Local
PW1	LYA10067-01B	CCD BOARD ASSY		
IC5801	TC75S54FU-X	IC		
IC5801	or NJU7008F3-X	IC		
IC5802	SN74AHC1G66K-X	IC		
IC5802	or TC7S66FU-X	IC(DIGITAL)		
IC5802	or 74AHC1G66GW-X	IC		
IC5803	TC75S54FU-X	IC		
IC5803	or NJU7008F3-X	IC		
IC5804	TC7W53FU-X	IC(DIGITAL)		
IC5852	NAL0039-001X	GYRO SENSOR		
IC5901	TC75S54FU-X	IC		
IC5901	or NJU7008F3-X	IC		
IC5902	SN74AHC1G66K-X	IC		
IC5902	or TC7S66FU-X	IC(DIGITAL)		
IC5902	or 74AHC1G66GW-X	IC		
IC5903	TC75S54FU-X	IC		
IC5903	or NJU7008F3-X	IC		
IC5904	TC7W53FU-X	IC(DIGITAL)		
IC5952	NAL0038-001X	GYRO SENSOR		
Q5001	2SC5345U/Y/-X	TRANSISTOR	CCD OUT	
Q5001	or 2SC3931/CD/-X	TRANSISTOR	CCD OUT	
C5001	NBP41EM-475X-B	TA E CAPACITOR	4.7uF 25V M	
C5002	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C5003	NBP21CM-106X	TA E CAPACITOR	10uF 16V M	
C5004	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5005	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C5006	NCB11EK-104X	C CAPACITOR	0.1uF 25V K	
C5007	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C5801	NBE90JM-106X	TA E CAPACITOR	10uF 6.3V M	
C5806	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C5807	NCB21AK-225X	C CAPACITOR	2.2uF 10V K	
C5808	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
C5809	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
C5810	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
C5812	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5813	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
C5851	NBE90JM-106X	TA E CAPACITOR	10uF 6.3V M	
C5853	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5907	NCB21AK-225X	C CAPACITOR	2.2uF 10V K	
C5908	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
C5909	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
C5910	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
C5912	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C5913	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
R5001	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R5805	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R5806	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R5807	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R5808	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R5811	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R5812	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5816	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5817	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5818	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R5819	NRSA63D-104X	MG RESISTOR	100kΩ 1/16W D	
R5820	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	
R5905	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R5906	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R5907	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R5908	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R5911	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R5912	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5915	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5917	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5918	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R5919	NRSA63D-104X	MG RESISTOR	100kΩ 1/16W D	
R5920	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	
L5001	NQL315K-100X	COIL	10uH K	
L5003	NQL315K-100X	COIL	10uH K	
L5801	NQR0129-002X	FERRITE BEADS		
L5851	NQR0129-002X	FERRITE BEADS		

MODEL	MARK
GZ-MG27US	A
GZ-MG37US	B
GZ-MG39UC	C

Symbol No.	Part No.	Part Name	Description	Local
CN5001 OT1	QGF0503F8-24X QAL0740-002	CONNECTOR FPC	TO MAIN FFC/FPC (1-24) FOR CN5001	

OPE BOARD ASSEMBLY <04>

Symbol No.	Part No.	Part Name	Description	Local
PW1	LYA10069-01B1	OPE BOARD ASSY		
D401	SML-A12UT-X	LED	POW/CHG	
D402	SMLA12BC4T-X	LED	DRV_ACCESS	
D403	MA8068-X	Z DIODE	LCD_OPEN SW	
D403	or UDZS6.8B-X	Z DIODE	LCD_OPEN SW	
D404	SML-A12MT-X	LED	USB_HOST	
D452	MA8068-X	Z DIODE		
D452	or UDZS6.8B-X	Z DIODE		
C451	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C452	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C455	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C456	NEAF0GM-337X	E CAPACITOR	330uF 4V M	
C457	NEAF0GM-337X	E CAPACITOR	330uF 4V M	
R401	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R405	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R406	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R407	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R408	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R451	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R452	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R455	NRSA63D-680X	MG RESISTOR	68Ω 1/16W D	
R456	NRSA63D-680X	MG RESISTOR	68Ω 1/16W D	
R457	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L451	NQR0251-004X	FERRITE BEADS		
L452	NQR0251-004X	FERRITE BEADS		
L453	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L454	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L455	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

Symbol No.	Part No.	Part Name	Description	Local
Q6201	RSR025P03-X	MOS FET		
Q6202	RSR025N03-X	MOS FET		
Q6301	RSR025P03-X	MOS FET		
Q6302	RTF020P02-X	MOS FET		
Q6303	2SC4617/QR/-X	TRANSISTOR		
Q6303	or BC847BT-X	TRANSISTOR		
Q6303	or 2SD2216J/QR/-X	TRANSISTOR		
Q6303	or 2SC4738/YG/-X	TRANSISTOR		
Q6303	or 2SC5383/E/-X	TRANSISTOR		
Q6401	RSR025P03-X	MOS FET		
Q6402	RTF020P02-X	MOS FET		
Q6403	2SC4617/QR/-X	TRANSISTOR		
Q6403	or BC847BT-X	TRANSISTOR		
Q6403	or 2SD2216J/QR/-X	TRANSISTOR		
Q6403	or 2SC4738/YG/-X	TRANSISTOR		
Q6403	or 2SC5383/E/-X	TRANSISTOR		
Q6404	RTF020P02-X	MOS FET		
Q6501	RSR025P03-X	MOS FET		
Q6502	2SD2703-X	TRANSISTOR		
Q6503	UMT1N-W	PAIR TRANSISTOR		
Q6503	or HN1A01FU/G/-X	PAIR TRANSISTOR		
Q6503	or BC856S-X	PAIR TRANSISTOR		
Q6701	RSR025P03-X	MOS FET		
Q6702	RSR025P03-X	MOS FET		
Q6703	RSR025P03-X	MOS FET		

Symbol No.	Part No.	Part Name	Description	Local
D601	EMZ6.8N-X	Z DIODE		BATT
D602	UDZS16B-X	Z DIODE		
D6101	RB160M-30-X	SB DIODE		
D6201	RB160M-30-X	SB DIODE		
D6301	RB160M-30-X	SB DIODE		
D6302	1SS355-X	SI DIODE		
D6302	or MA111-X	SI DIODE		
D6401	1SS355-X	SI DIODE		
D6401	or MA111-X	SI DIODE		
D6402	RB160M-30-X	SB DIODE		
D6501	RB481K-X	SB DIODE		
D6502	RB481K-X	SB DIODE		
D6701	RB160M-30-X	SB DIODE		
D6702	RB160M-30-X	SB DIODE		
D6801	RB551V-30-X	SB DIODE		
D6901	MA8068-X	Z DIODE		

Symbol No.	Part No.	Part Name	Description	Local
△ BT401	QAB0069-001	LITHIUM BATTERY		
CN401	QGF0547C3-50X	CONNECTOR	MAIN PWB FFC/FPC (1-50)	
CN402	QGF0503F8-24X	CONNECTOR	MONI FPC FFC/FPC (1-24)	
CN403	QGA1001F1-02X	CONNECTOR	SPEAKER W-B (1-2)	
J401	QNS0078-001	3.5 JACK	AV JACK	
J402	QND0078-001	S JACK	S JACK	
S401	NSW0260-001X	SLIDE SWITCH	POWER_CHRG	
S402	NSW0161-001X	DETECT SWITCH	LCD_OPEN	
S403	NSW0099-001X	SLIDE SWITCH	MOV/STILL	
S404	NSW0198-001X	TACT SWITCH	INFO	
S405	NSW0198-001X	TACT SWITCH	BKLIGHT	
S411	NSW0198-001X	TACT SWITCH	NIGHT EYE	
S412	NSW0198-001X	TACT SWITCH	TRASH	
S413	NSW0272-001X	TACT SWITCH	RESET	
WR1	WJT0196-001A-E	E-CARD WIRE	OPE-MAIN	

REAR BOARD ASSEMBLY <05>

Symbol No.	Part No.	Part Name	Description	Local
PW1	LYA10068-01C	REAR BOARD ASSY		
IC6001	FA7737F	IC		
IC6002	LTC4412ES6-W	IC		
IC6004	S-89220ACNC-G-W	IC		
Q6002	DTC144EE-X	DIGI TRANSISTOR		
Q6002	or BCR148T-X	DIGI TRANSISTOR		
Q6002	or UN9213J-X	DIGI TRANSISTOR		
Q6002	or PDTC144EE-X	DIGI TRANSISTOR		
Q6003	SP8J5-X	MOS FET	SP8J5	
Q6101	RSR025P03-X	MOS FET		
Q6102	RSR025N03-X	MOS FET		

Symbol No.	Part No.	Part Name	Description	Local
C601	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C603	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C6006	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C6007	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C6008	NCJ21CK-475X-R	C CAPACITOR	4.7uF 16V K	
C6009	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C6010	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C6011	NCJ21CK-475X-R	C CAPACITOR	4.7uF 16V K	
C6017	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C6018	NCBA1AK-104W	C CAPACITOR	0.1uF 10V K	
C6019	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C6020	NCBA1CK-103W	C CAPACITOR	0.01uF 16V K	
C6101	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6102	NCB10JK-106X	C CAPACITOR	100uF 6.3V K	
C6103	NCBA1HK-221W	C CAPACITOR	220pF 50V K	
C6104	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6201	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6202	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6203	NCBA1HK-102W	C CAPACITOR	1000pF 50V K	
C6204	NCBA1HK-221W	C CAPACITOR	220pF 50V K	
C6301	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6302	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6303	NCBA1HK-681W	C CAPACITOR	680pF 50V K	
C6305	NCBA1HK-221W	C CAPACITOR	220pF 50V K	
C6401	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6402	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6403	NCBA1HK-681W	C CAPACITOR	680pF 50V K	
C6405	NCBA1HK-221W	C CAPACITOR	220pF 50V K	
C6501	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6502	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C6503	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6504	NCB11CK-475X	C CAPACITOR	4.7uF 16V K	
C6505	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C6506	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6508	NCB21CK-105X	C CAPACITOR	1uF 16V K	

MODEL	MARK
GZ-MG27US	A
GZ-MG37US	B
GZ-MG39UC	C

Symbol No.	Part No.	Part Name	Description	Local
L7602	NQL38DK-101X	P COIL	100uH K	
CN7601	QGF0508F3-12X	CONNECTOR	KIN OPE FFC/FPC (1-12)	
CN7602	QGF0508F3-12X	CONNECTOR	KIN OPE FFC/FPC (1-12)	
CN7603	QGF0534F2-36X	CONNECTOR	KIN LCD FFC/FPC (1-36)	
CN7701	QGF0508F3-06X	CONNECTOR	LED BL FFC/FPC (1-6)	
S7501	NSW0288-001X	TACT SWITCH	CROSSKEY	
S7502	NSW0198-001X	TACT SWITCH	MENU	
OT1	QAL0687-001	FPC		