

SERVICE MANUAL

LEVEL 3

Ver. 1.3 2006. 10

Revision History

How to use
Acrobat Reader

Internal memory
ON BOARD



US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model
Argentina Model
Hong Kong Model
Korea Model
Tourist Model

Link

• SERVICE NOTE

• SCHEMATIC DIAGRAMS

• PRINTED WIRING BOARDS

• REPAIR PARTS LIST

Note :

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

Note :

Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

DIGITAL STILL CAMERA
SONY[®]



Cyber-shot
Digital Still Camera



SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
 - Keep the temperature of the soldering iron around 270°C during repairing.
 - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
 - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)



: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350°C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE \triangle SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

CAUTION :

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

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1. SERVICE NOTE

1-1. METHOD FOR COPYING OR ERASING THE DATA IN INTERNAL MEMORY

The data can be copied/erased by the operations on the Setup screen. (When erasing the data, execute formatting the internal memory.)

Note: 1 When replacing the SY-150 board, erase the data in internal memory of the board before replacement.

Note: 2 When replacing the SY-150 board or the IC202 on the SY-150 board, execute formatting and initialize the internal memory after replacement.

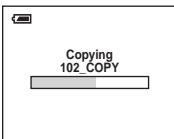
Method for Copying the Data in Internal Memory

Copy

Copies all images in the internal memory to a “Memory Stick”.

<input type="checkbox"/>	OK	See the following procedure.
<input checked="" type="checkbox"/>	Cancel	Cancels the copying.

- ① Insert a “Memory Stick” having 32 MB or larger capacity.
- ② Select [OK] with ▲ on the control button, then press ●.
The message “All data in internal memory will be copied Ready?” appears.
- ③ Select [OK] with ▲, then press ●.
Copying starts.



Use batteries with enough capacity or the AC Adaptor (not supplied). If you attempt to copy image files using batteries with little remaining capacity, the batteries may run out, causing copying to fail or possibly corrupting the data.

You cannot copy individual images.

The original images in the internal memory are retained even after copying. To delete the contents of the internal memory, remove the “Memory Stick” after copying, then execute the [Format] command in Internal Memory Tool.

You cannot select a folder copied on a “Memory Stick”.

The setting of (Print order) marks is not copied even when you copy data.

Method for Formatting the Internal Memory

Format

Formats the internal memory.

Note that formatting irrevocably erases all data in the internal memory, including even protected images.

<input type="checkbox"/>	OK	See the following procedure.
<input checked="" type="checkbox"/>	Cancel	Cancels the formatting.

- ① Select [OK] with ▲ on the control button, then press ●.
The message “All data in internal memory will be erased Ready?” appears.
- ② Select [OK] with ▲, then press ●.
The format is complete.

• PROCESS AFTER FIXING FLASH ERROR

When “FLASH error” (Self-diagnosis Code E : 91 : **) occurs, to prevent any abnormal situation caused by high voltage, setting of the flash is changed automatically to disabling charge and flash setting.

After fixing, this setting needs to be deactivated. Flash error code can be initialized by the operations on the Setup screen.

Method for Initializing the Flash Error Code

Initialize

Initializes the setting to the default setting.

<input type="checkbox"/>	OK	See the following procedure.
<input checked="" type="checkbox"/>	Cancel	Cancels the resetting.

- ① Select [OK] with ▲ on the control button, then press ●.
The message “Initialize all settings Ready?” appears.
- ② Select [OK] with ▲, then press ●.
The settings are reset to the default setting.

Make sure that the power is not disconnected during resetting.

4-2. SCHEMATIC DIAGRAMS

Link

• SY-150 BOARD (1/8) (LENS DRIVE)	• SY-150 BOARD (6/8) (STEADY SHOT CONTROL)
• SY-150 BOARD (2/8) • (CAMERA A/D CONV., TIMING GENERATOR)	• SY-150 BOARD (7/8) (CONNECTOR)
• SY-150 BOARD (3/8) • (CAMERA DSP, SYSTEM CONTROL)	• SY-150 BOARD (8/8) (DC/DC CONVERTER)
• SY-150 BOARD (4/8) • (256Mbit SDRAM, FLASH MEMORY, One NAND)	• CH-169 BOARD (CCD SIGNAL PROCESS)
• SY-150 BOARD (5/8) • (A/V AMP, A/V, USB JACK RELAY)	
• COMMON NOTE FOR SCHEMATIC DIAGRAMS	

4-2. SCHEMATIC DIAGRAMS

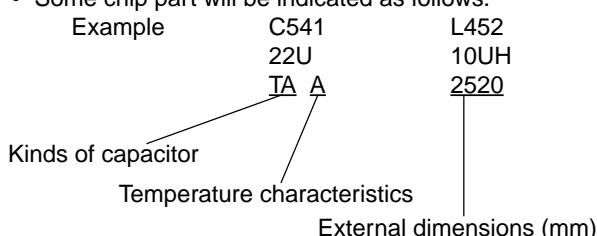
4-2. SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS

(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. $\text{pF} : \mu\text{F}$. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. $\text{k}\Omega=1000 \Omega$, $\text{M}\Omega=1000 \text{k}\Omega$.
- Caution when replacing chip parts.
New parts must be attached after removal of chip.
Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.



- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
In such cases, the unused circuits may be indicated.
- Parts with * differ according to the model/destination.
Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
XEDIT → EDIT PB/XREC → PB/REC
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B- Line
- : IN/OUT direction of (+, -) B LINE.
- : adjustment for repair.

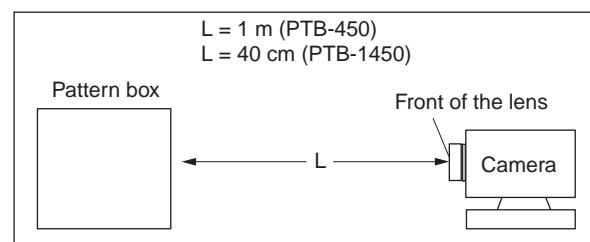
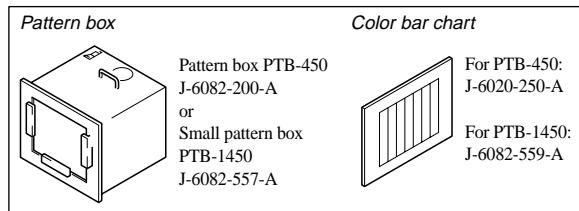
(Measuring conditions voltage)

- Voltages are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values.
(VOM of DC 10 M Ω input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

Precautions for Replacement of imager

- If the imager has been replaced, carry out all the adjustments for the camera section.
- As the imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

1. Connection



2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

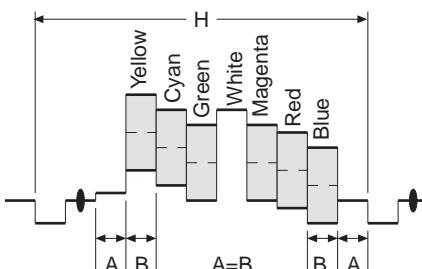


Fig. a (Video output terminal output waveform)

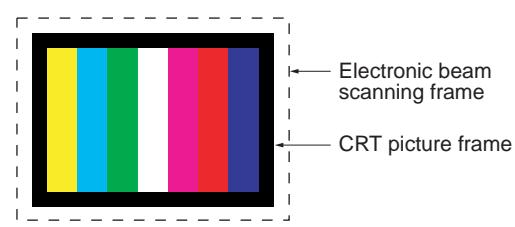


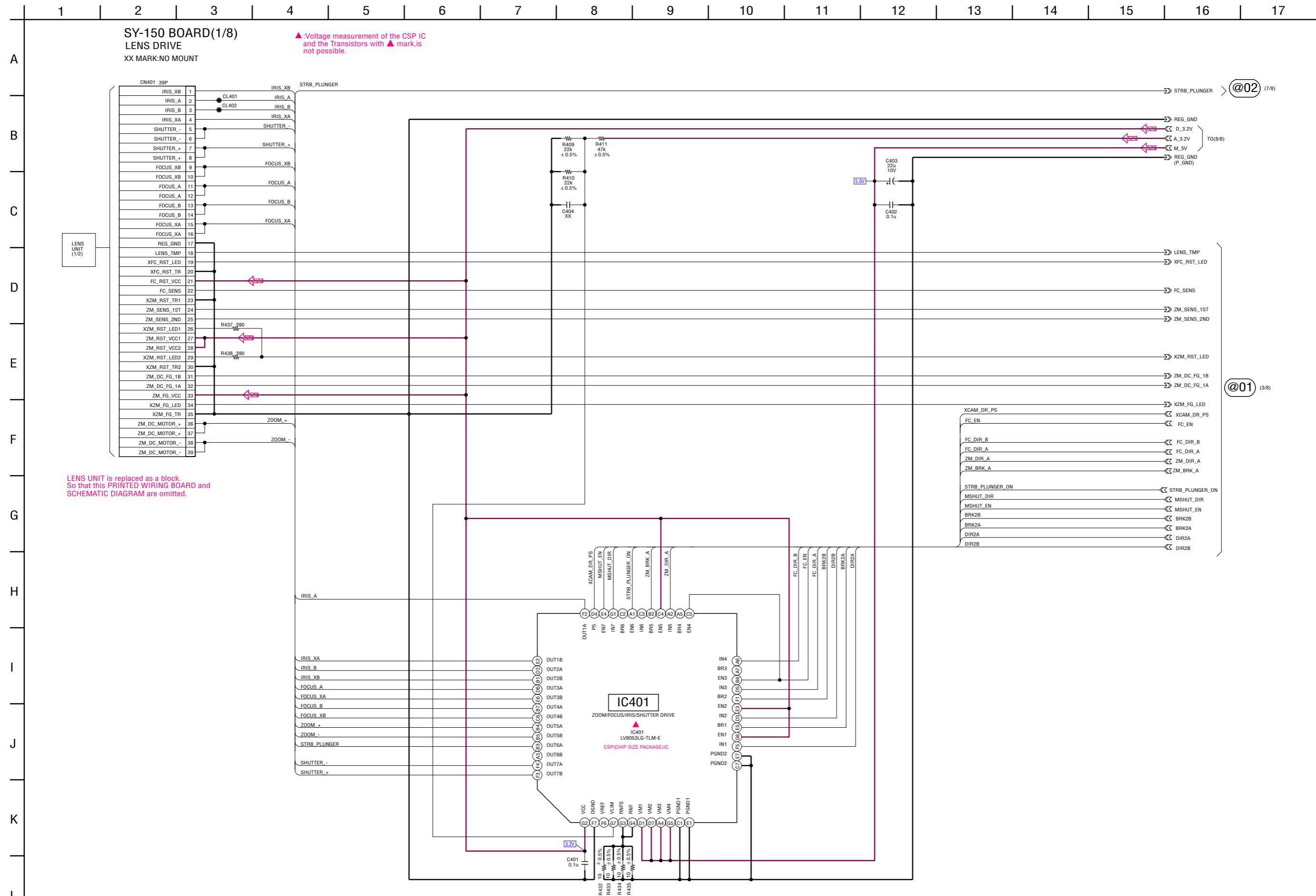
Fig.b (Picture on monitor TV)

When indicating parts by reference number, please include the board name.

Note :
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

4-2. SCHEMATIC DIAGRAMS

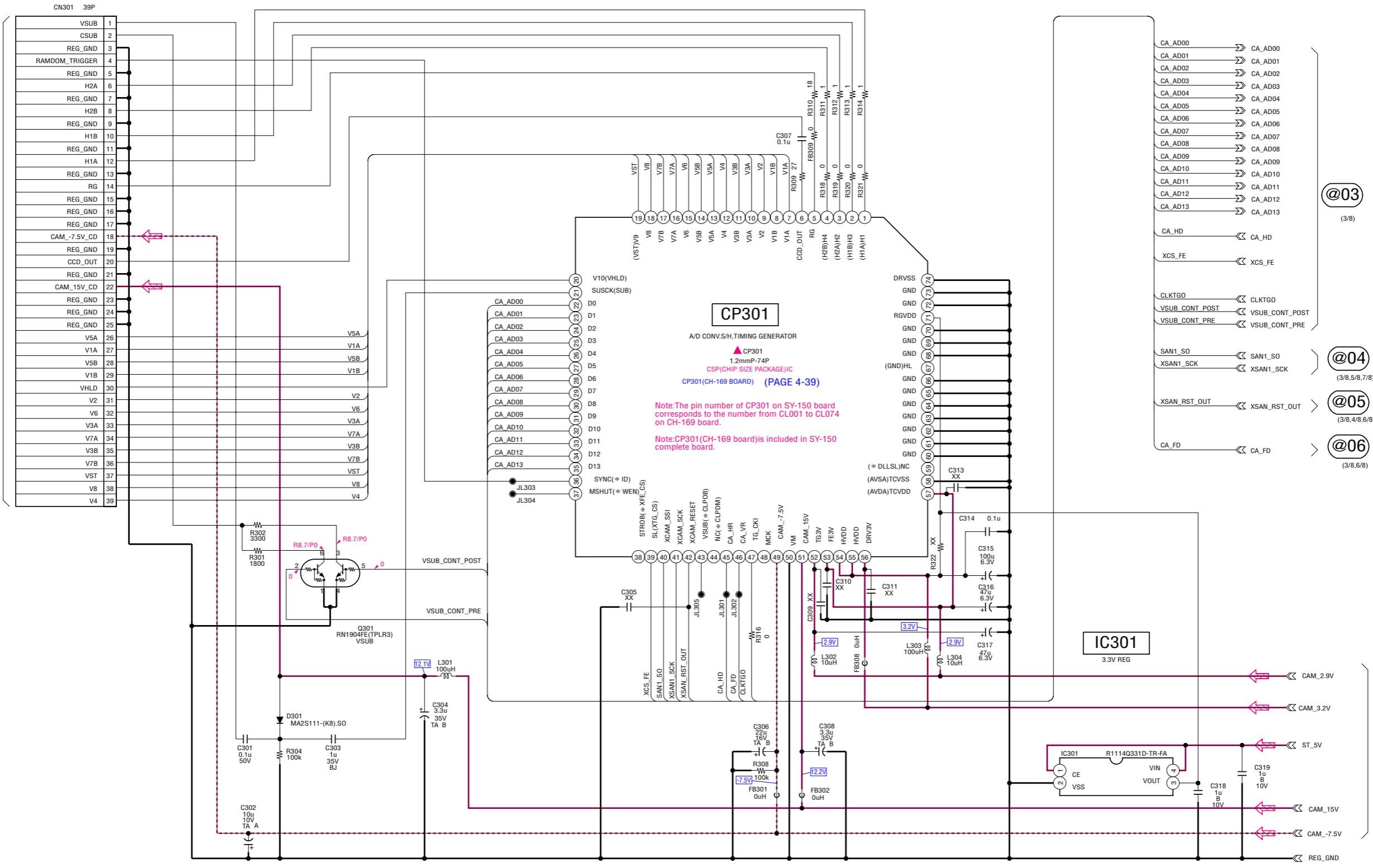


SY-150 BOARD(2/8)
CAMERA A/D CONV.TIMING GENERATOR
XX MARK: NO MOUNT

▲ :Voltage measurement of the CSP IC
and the Transistors with ▲ mark,is
not possible.

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

TO CD-621
FLEXIBLE
BOARD
(PAGE 4-19
of LEVEL 2)



@03
(3/8)

@04
(3/8,5/8,7/8)

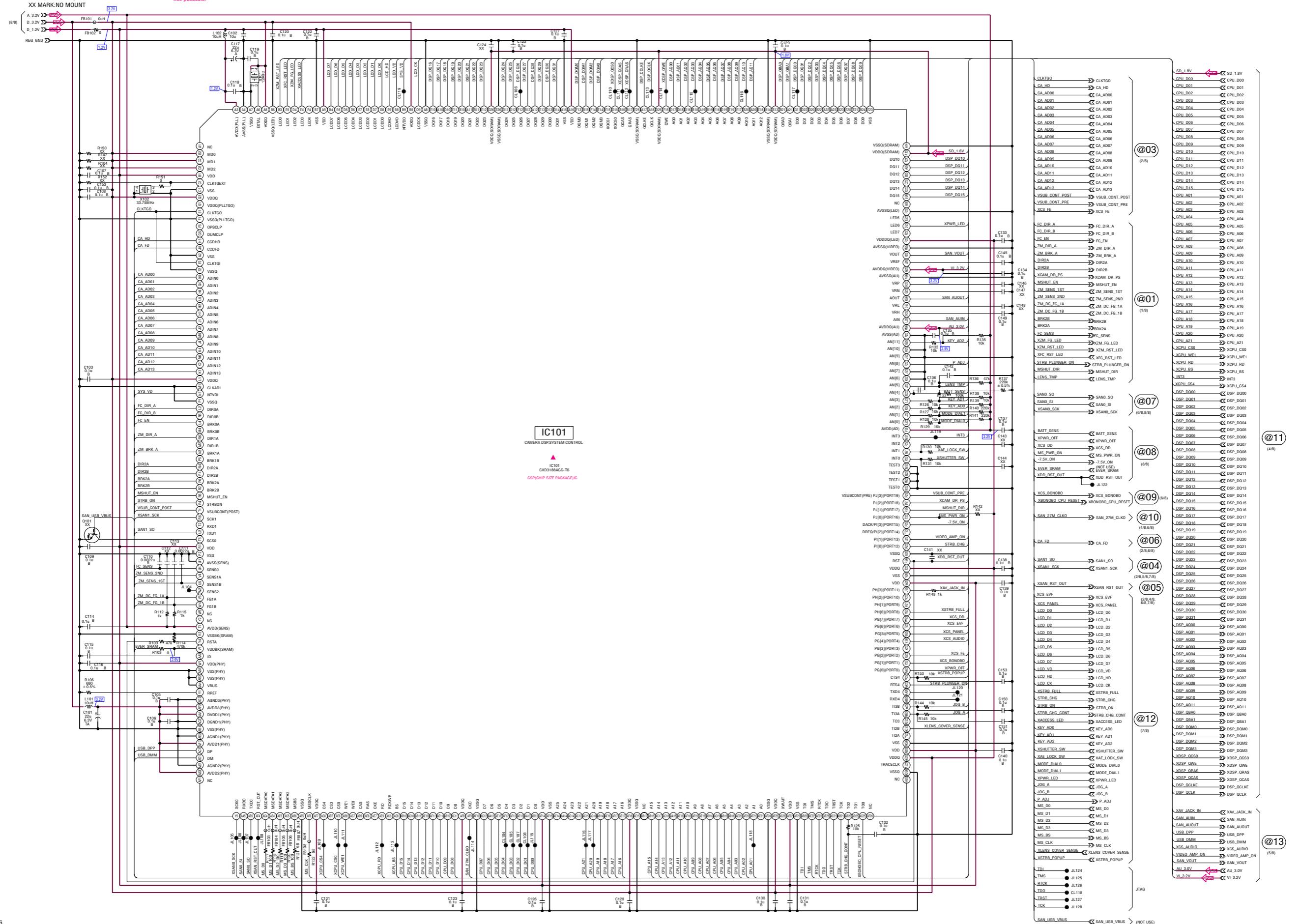
@05
(3/8,4/8,6/8,7/8)

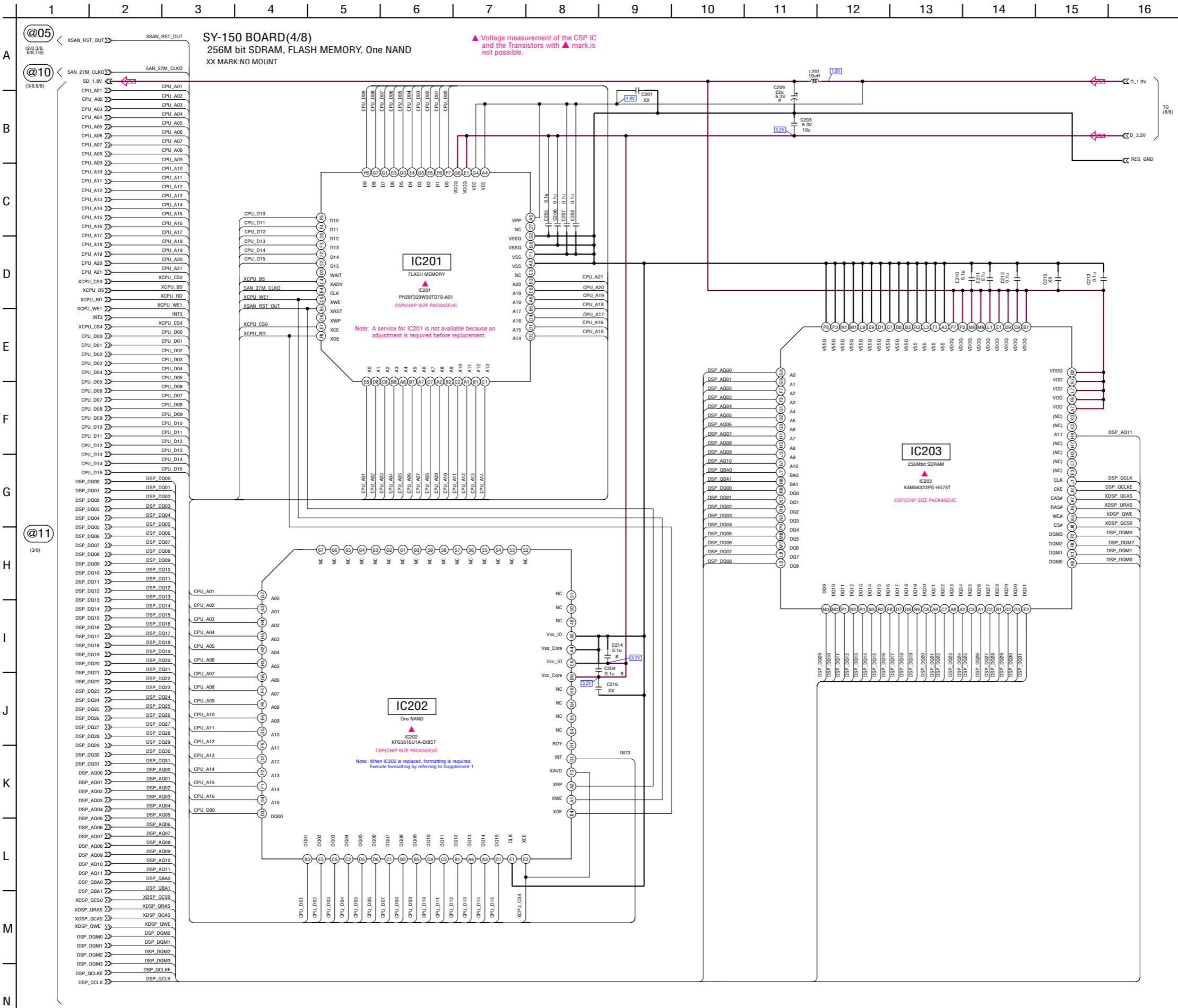
@06
(3/8,6/8)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

SY-150 BOARD(3/8)
CAMERA DSP/SYSTEM CONTROL
XX MARK: NO MOUNT

▲ Voltage measurement of the CSP IC
and the Transistors with ▲ mark, is
not possible.





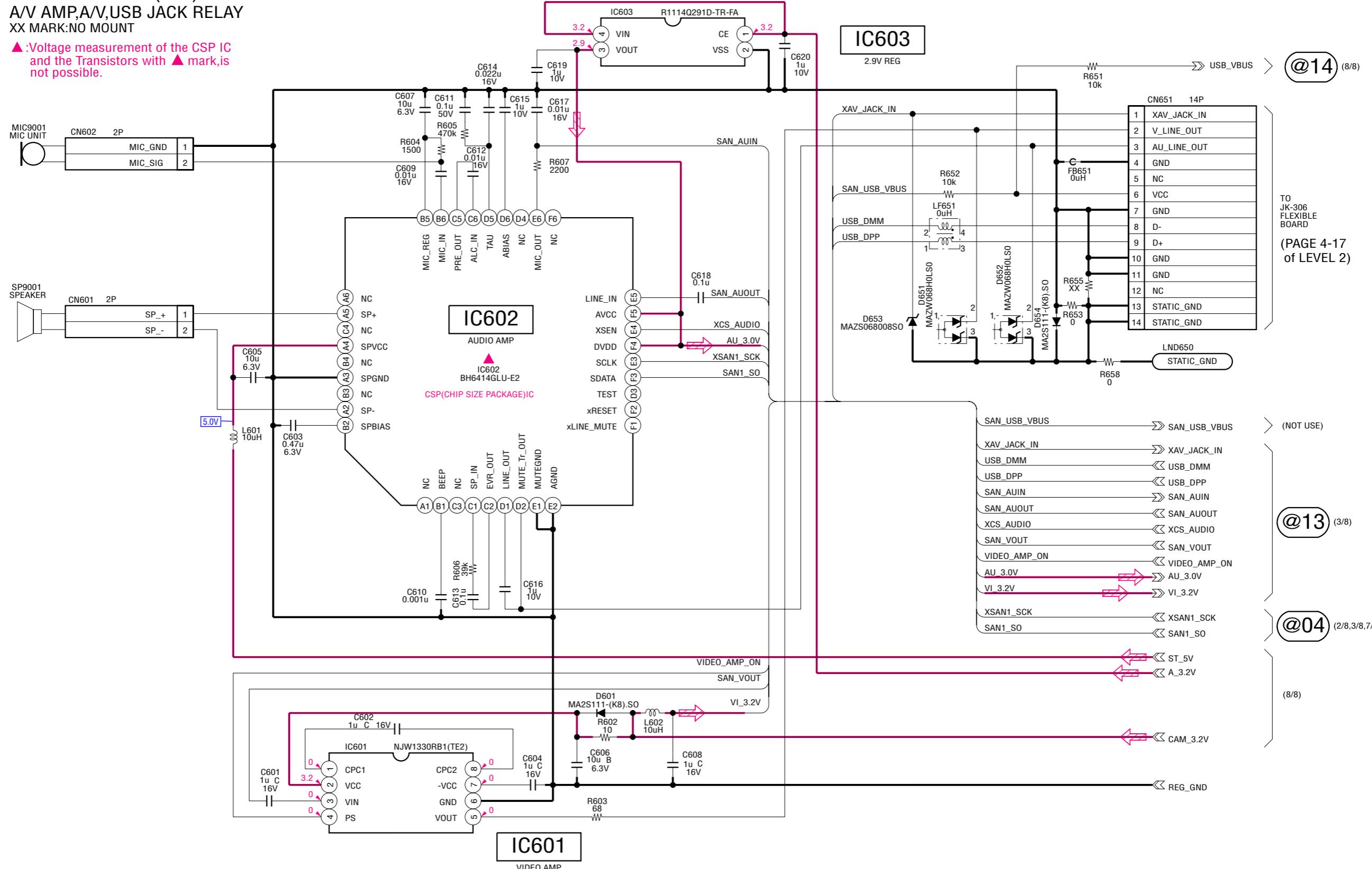
1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11

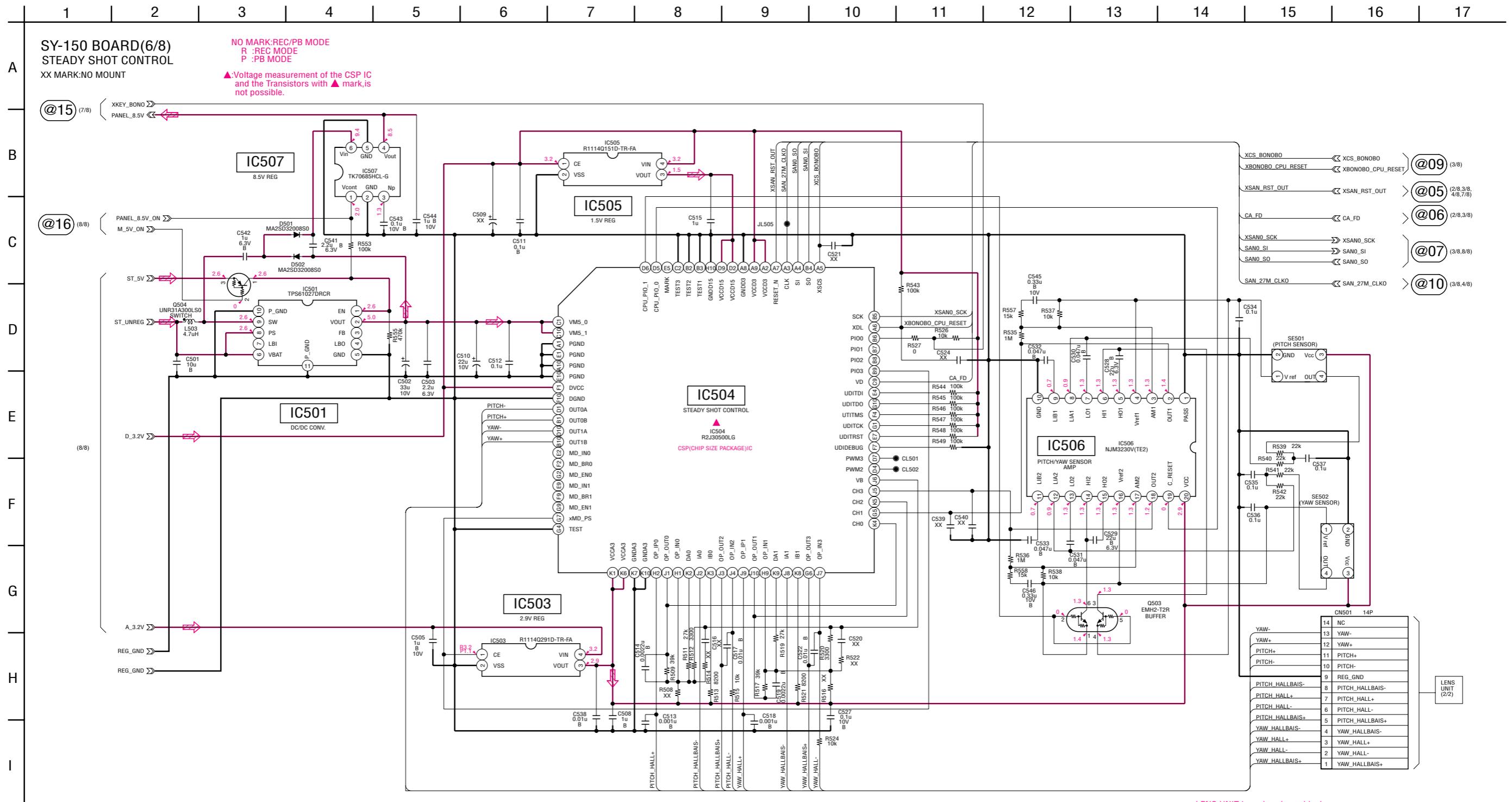
SY-150 BOARD(5/8)

A/V AMP,A/V,USB JACK RELAY

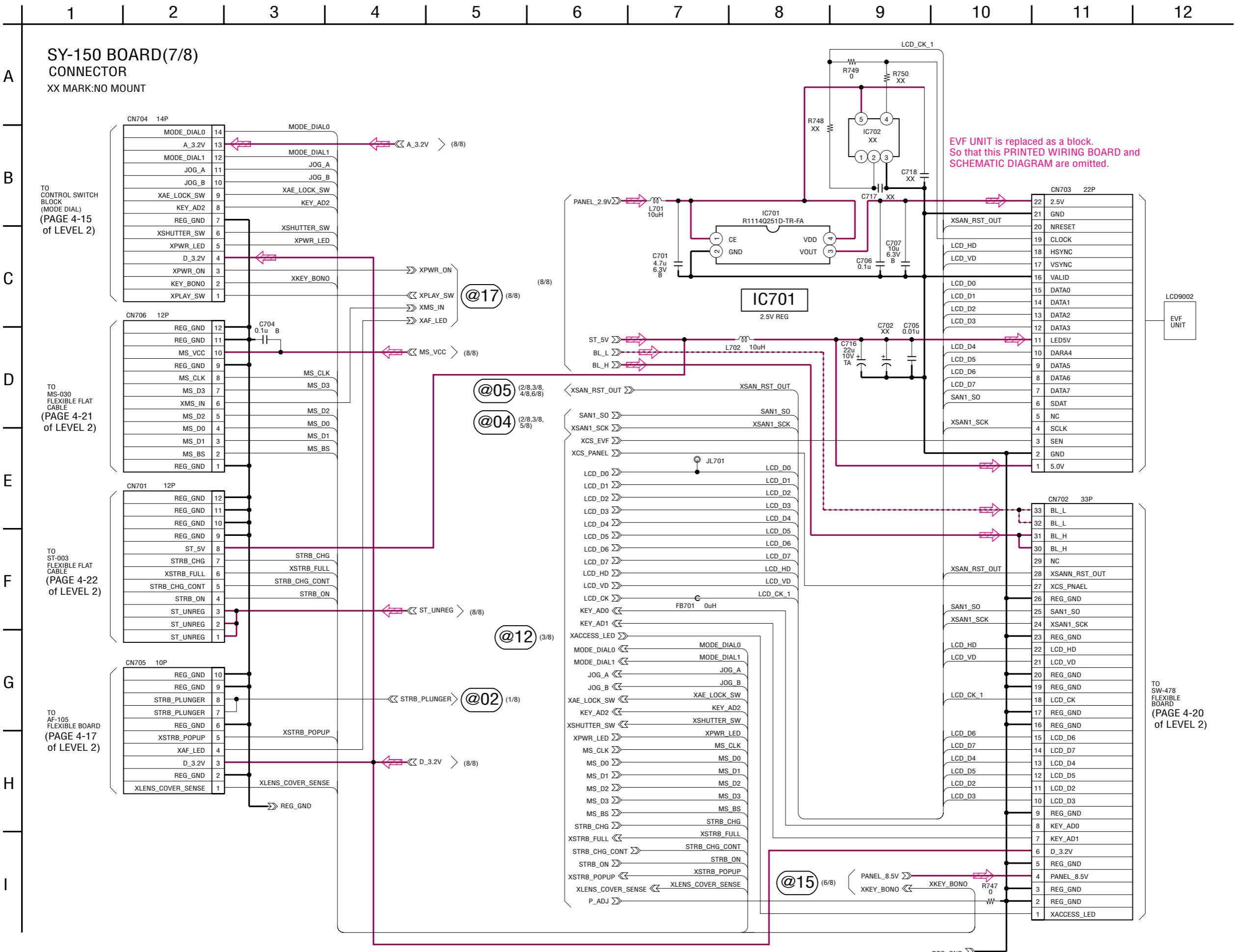
XX MARK: NO MOUNT

▲: Voltage measurement of the CSP IC and the Transistors with ▲ mark, is not possible.

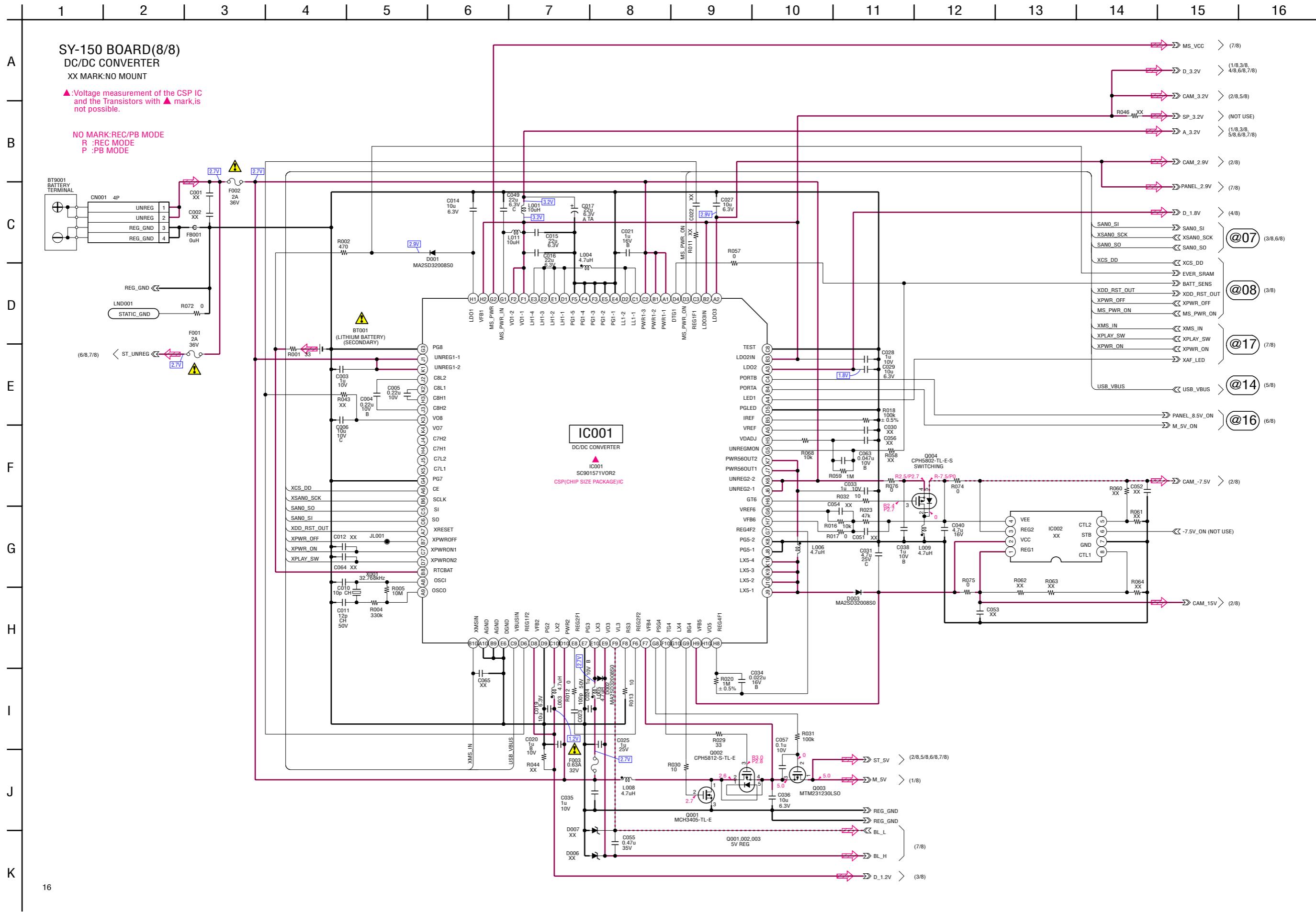


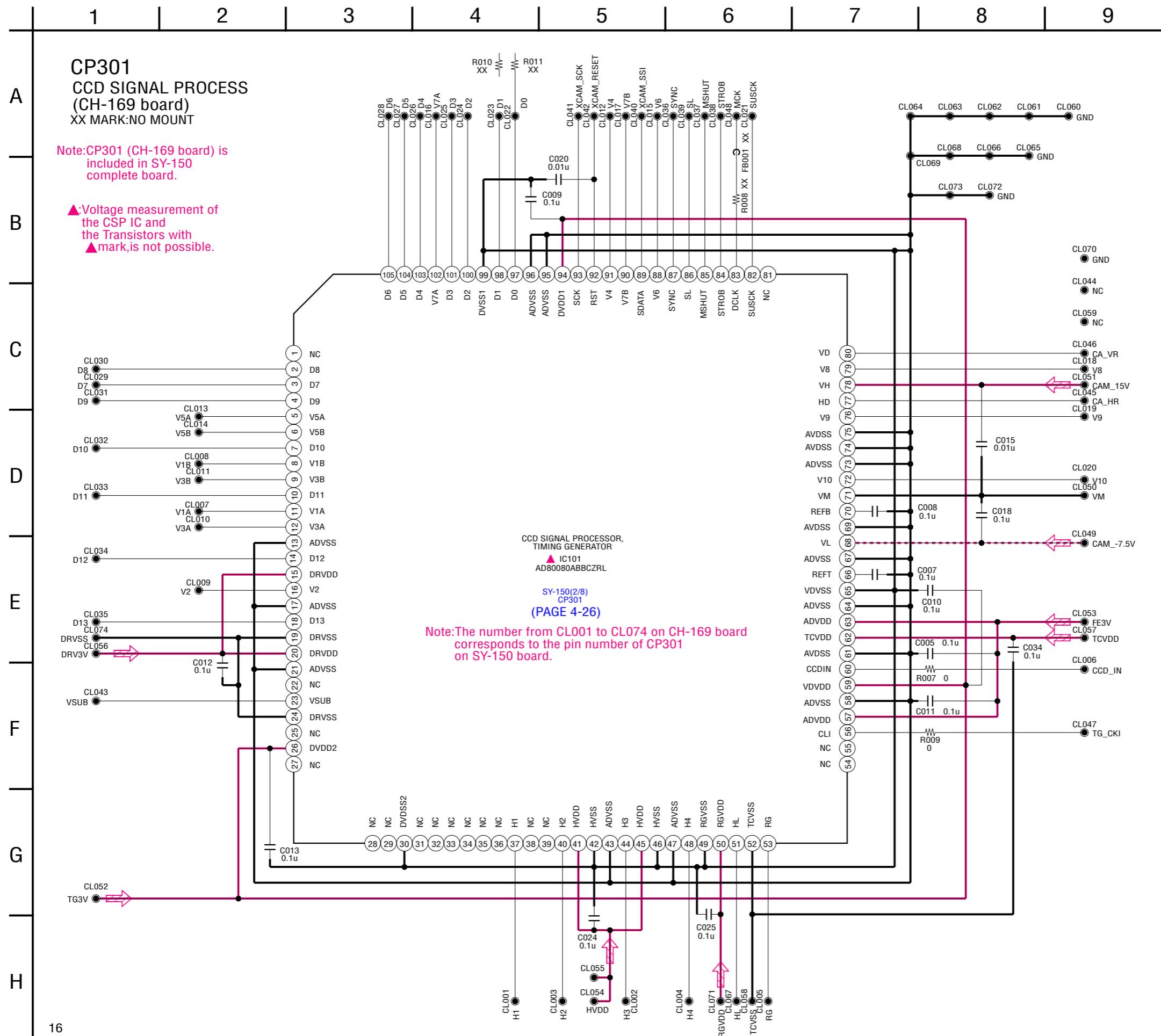


LENS UNIT is replaced as a block.
So that this **PRINTED WIRING BOARD** and
SCHEMATIC DIAGRAM are omitted.



• Refer to page 4-3 for mark △.





4-3. PRINTED WIRING BOARDS

Link

• SY-150 BOARD (SIDE A)

• SY-150 BOARD (SIDE B)

• CH-169 BOARD

• COMMON NOTE FOR PRINTED WIRING BOARDS

• MOUNTED PARTS LOCATION

4-3. PRINTED WIRING BOARDS

4-3. PRINTED WIRING BOARDS

THIS NOTE IS COMMON FOR WIRING BOARDS

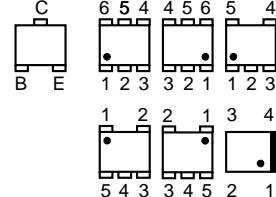
(In addition to this, the necessary note is printed in each block)

(For printed wiring boards)

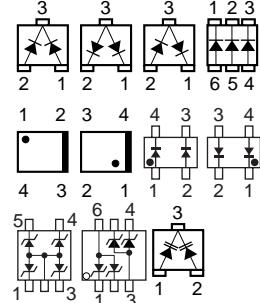
- : Uses unleaded solder.
- : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated)
- Through hole is omitted.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor



Diode



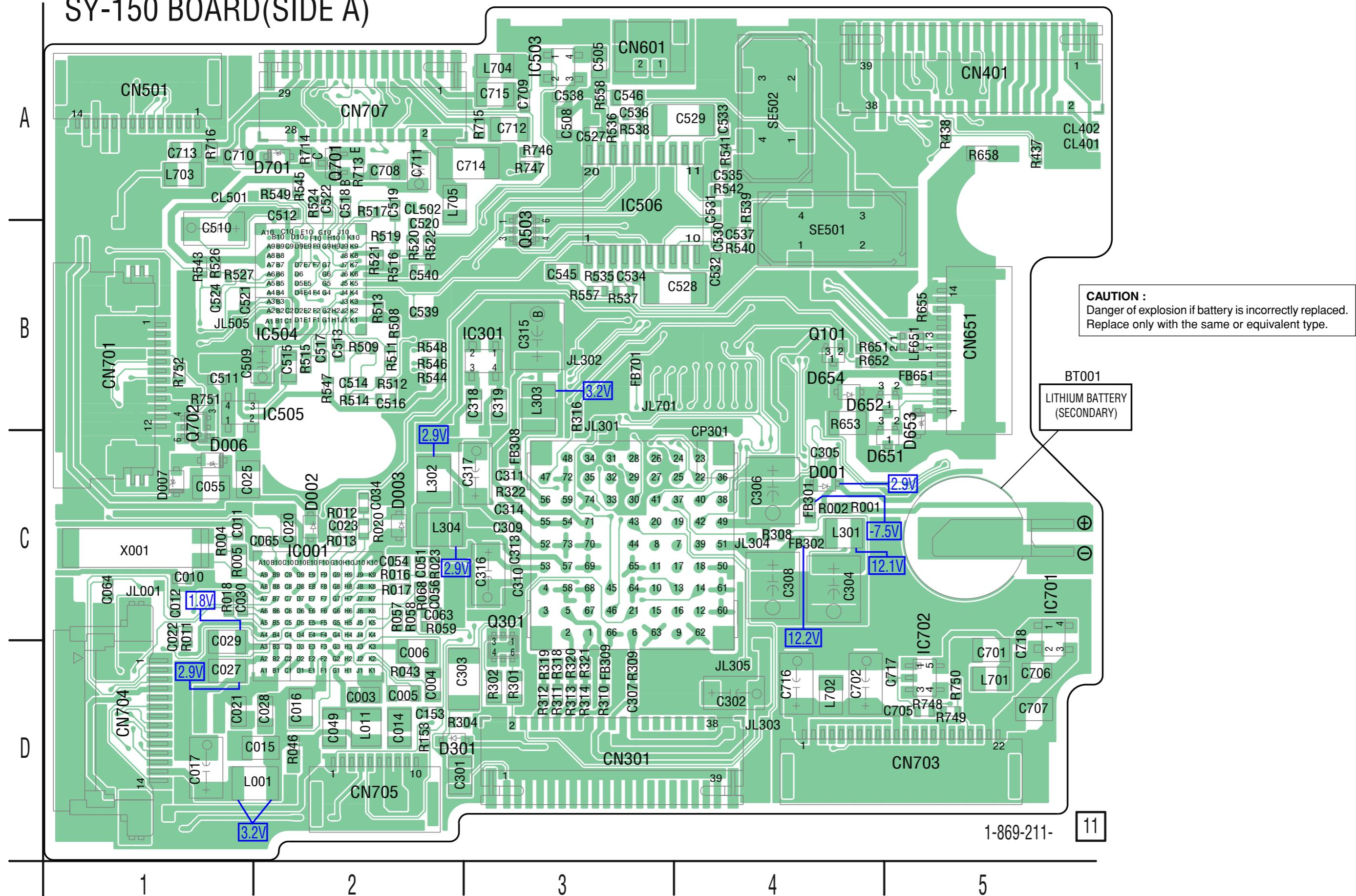
4-3. PRINTED WIRING BOARDS

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SY-150 (8 layers) •  : Uses unleaded solder.

Note: CP301(CH-169 board) is not included in
this COMPLETE of SY-150 board.

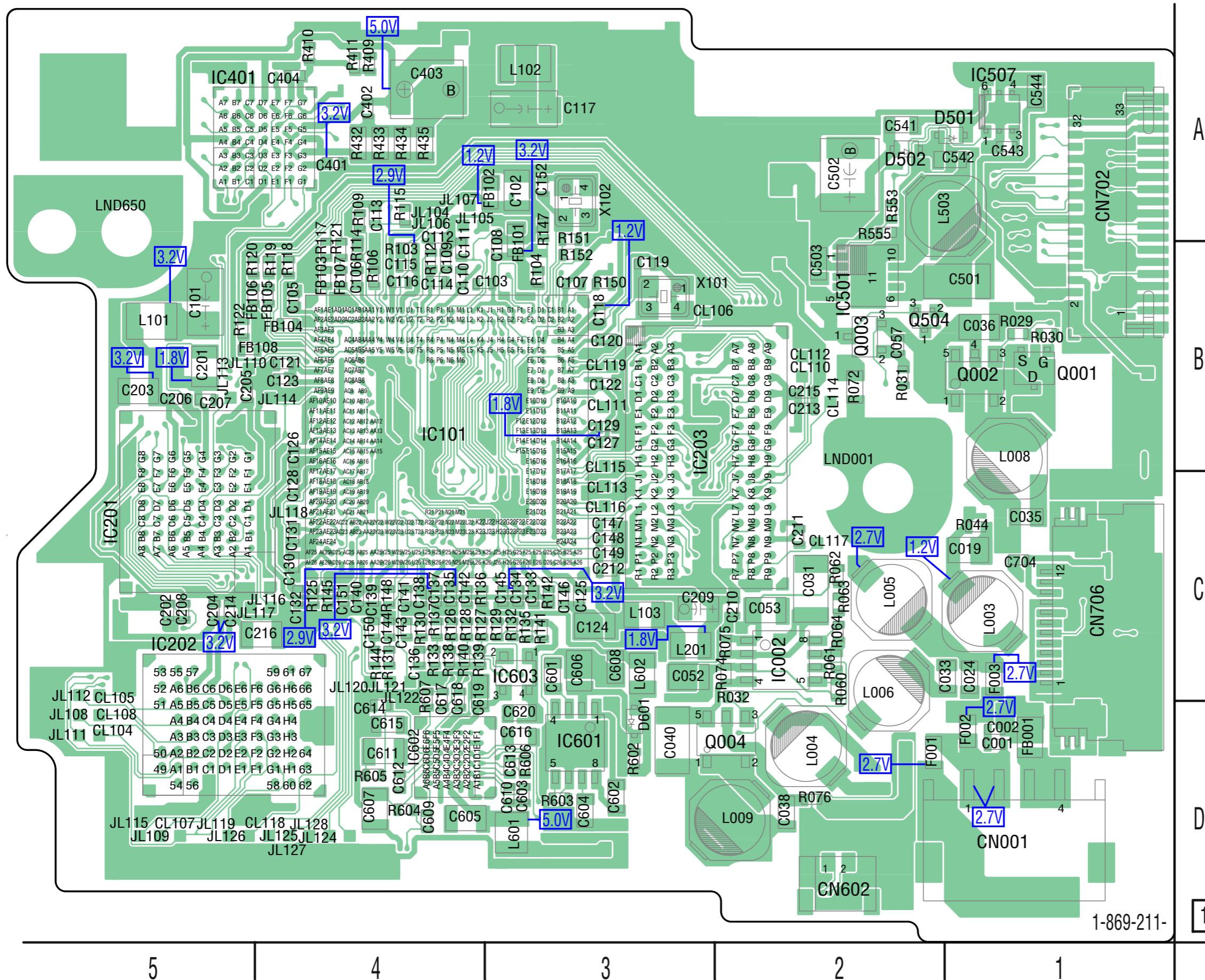
SY-150 BOARD(SIDE A)



SY-150 (8 layers)

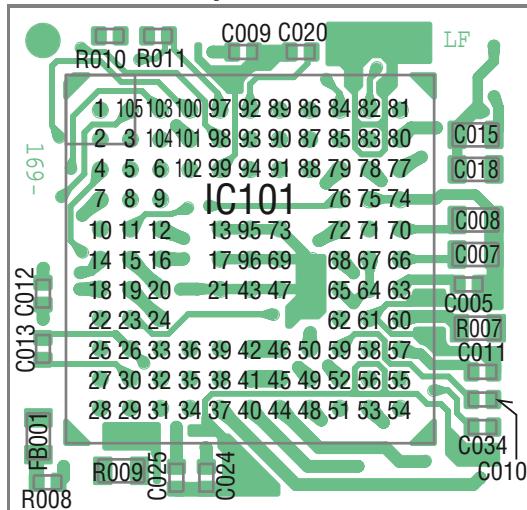
- : Uses unleaded solder

SY-150 BOARD(SIDE B)



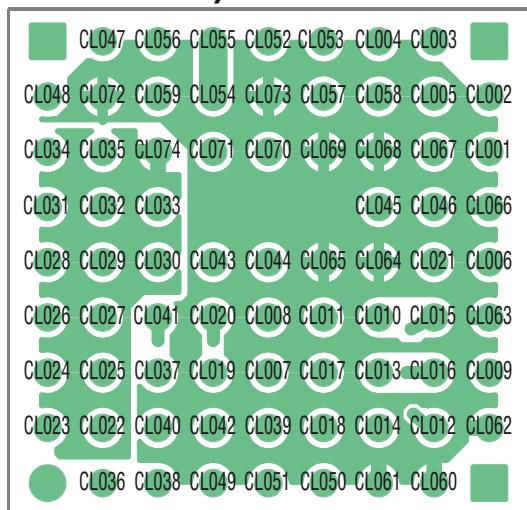
Note: CP301 (CH-169 board) is included
in SY-150 complete board.

CP301 (CH-169 board) (SIDE A)



1-865-271- 11

(SIDE B)



1-865-271- 11

4-3. PRINTED WIRING BOARDS

4-4. MOUNTED PARTS LOCATION

no mark : side A
* mark : side B

SY-150 BOARD

* C001	D-1	* C144	C-4	* C543	A-1	D301	D-2	* L003	C-1	* R122	B-5	R557	B-3
* C002	D-1	* C145	C-3	* C544	A-1	* D501	A-1	* L004	D-2	* R125	C-4	R558	A-3
C003	D-2	* C146	C-3	C545	B-3	* D502	A-2	* L005	C-2	* R126	C-4	* R602	D-3
C004	D-2	* C147	C-3	C546	A-3	* D601	D-3	* L006	C-2	* R127	C-4	* R603	D-3
C005	D-2	* C148	C-3	* C601	C-3	D651	C-4	* L008	B-1	* R128	C-4	* R604	D-4
C006	D-2	* C149	C-3	* C602	D-3	D652	B-4	* L009	D-2	* R129	C-3	* R605	D-4
C010	C-1	* C150	C-4	* C603	D-3	D653	B-5	L011	D-2	* R130	C-4	* R606	D-3
C011	C-1	* C151	C-4	* C604	D-3	D654	B-4	* L101	B-5	* R131	C-4	* R607	C-4
C012	C-1	* C152	A-3	* C605	D-4	D701	A-2	* L102	A-3	* R132	C-3	R651	B-4
C014	D-2	C153	D-2	* C606	C-3			* L103	C-3	* R133	C-4	R652	B-4
C015	D-2	* C201	B-5	* C607	D-4	* F001	D-2	* L201	C-3	* R135	C-3	R653	B-4
C016	D-2	* C202	C-5	* C608	C-3	* F002	D-1	L301	C-4	* R136	C-4	R655	B-5
C017	D-1	* C203	B-5	* C609	D-4	* F003	C-1	L302	C-2	* R137	C-4	R658	A-5
* C019	C-1	* C204	C-5	* C610	D-3			L303	B-3	* R138	C-4	R713	A-2
C020	C-2	* C205	B-5	* C611	D-4	* FB001	D-1	L304	C-2	* R139	C-4	R714	A-2
C021	D-1	* C206	B-5	* C612	D-4	* FB101	A-3	* L503	A-2	* R140	C-4	R715	A-3
C022	C-1	* C207	B-5	* C613	D-3	* FB102	A-3	* L601	D-3	* R141	C-3	R716	A-1
C023	C-2	* C208	C-5	* C614	D-4	* FB103	B-4	* L602	C-3	* R142	C-3	R746	A-3
* C024	C-1	* C209	C-3	* C615	D-4	* FB104	B-4	L701	D-5	* R144	C-4	R747	A-3
C025	C-1	* C210	C-2	* C616	D-3	* FB105	B-4	L702	D-4	* R145	C-4	R748	D-5
C027	D-1	* C211	C-2	* C617	C-4	* FB106	B-4	L703	A-1	* R147	A-3	R749	D-5
C028	D-2	* C212	C-3	* C618	C-4	* FB107	B-4	L704	A-3	* R148	C-4	R750	D-5
C029	C-1	* C213	B-2	* C619	C-4	* FB108	B-4	L705	A-2	* R150	B-3	R751	B-1
C030	C-1	* C214	C-5	* C620	D-3	FB301	C-4			* R151	A-3	R752	B-1
* C031	C-2	* C215	B-2	C701	D-5	FB302	C-4	LF651	B-5	* R152	B-3		
* C033	C-2	* C216	C-4	C702	D-4	FB308	C-3			R153	D-2	SE501	B-4
C034	C-2	C301	D-2	* C704	C-1	FB309	D-3	* LND001	B-2	R301	D-3	SE502	A-4
* C035	C-1	C302	D-4	C705	D-5	FB651	B-5	* LND650	A-5	R302	D-3		
* C036	B-1	C303	D-2	C706	D-5	FB701	B-3			R304	D-2	X001	C-1
* C038	D-2	C304	C-4	C707	D-5			* Q001	B-1	R308	C-4	* X101	B-3
* C040	D-3	C305	C-4	C708	A-2	IC001	C-2	* Q002	B-1	R309	D-3	* X102	A-3
C049	D-2	C306	C-4	C709	A-3	* IC002	C-2	* Q003	B-2	R310	D-3		
C051	C-2	C307	D-3	C710	A-1	* IC101	B-4	* Q004	D-2	R311	D-3		
* C052	C-3	C308	C-4	C711	A-2	* IC201	C-5	Q101	B-4	R312	D-3		
* C053	C-2	C309	C-3	C712	A-3	* IC202	C-5	Q301	C-3	R313	D-3		
C054	C-2	C310	C-3	C713	A-1	* IC203	B-3	Q503	B-3	R314	D-3		
C055	C-1	C311	C-3	C714	A-3	IC301	B-3	* Q504	B-2	R316	B-3		
C056	C-2	C313	C-3	C715	A-3	* IC401	A-5	Q701	A-2	R318	D-3		
* C057	B-2	C314	C-3	C716	D-4	* IC501	B-2	Q702	B-1	R319	D-3		
C063	C-2	C315	B-3	C717	D-5	IC503	A-3			R320	D-3		
C064	C-1	C316	C-3	C718	D-5	IC504	B-2	R001	C-4	R321	D-3		
C065	C-2	C317	C-3			IC505	B-2	R002	C-4	R322	C-3		
* C101	B-5	C318	B-3	* CL104	D-5	IC506	A-3	R004	C-1	* R409	A-4		
* C102	A-3	C319	B-3	* CL105	C-5	* IC507	A-1	R005	C-1	* R410	A-4		
* C103	B-3	* C401	A-4	* CL106	B-3	* IC601	D-3	R011	C-1	* R411	A-4		
* C105	B-4	* C402	A-4	* CL107	D-5	* IC602	D-4	R012	C-2	* R432	A-4		
* C106	B-4	* C403	A-4	* CL108	D-5	* IC603	C-3	R013	C-2	* R433	A-4		
* C107	B-3	* C404	A-4	* CL110	B-2	IC701	C-5	R016	C-2	* R434	A-4		
* C108	A-3	* C501	B-1	* CL111	B-3	IC702	C-5	R017	C-2	* R435	A-4		
* C109	B-4	* C502	A-2	* CL112	B-2			R018	C-1	* R437	A-5		
* C110	B-4	* C503	B-2	* CL113	C-3	JL001	C-1	R020	C-2	R438	A-5		
* C111	A-4	C505	A-3	* CL114	B-2	* JL104	A-4	R023	C-2	R508	B-2		
* C112	A-4	C508	A-3	* CL115	B-3	* JL105	A-4	* R029	B-1	R509	B-2		
* C113	A-4	C509	B-1	* CL116	C-3	* JL106	A-4	* R030	B-1	R511	B-2		
* C114	B-4	C510	B-1	* CL117	C-2	* JL107	A-4	* R031	B-2	R512	B-2		
* C115	B-4	C511	B-1	* CL118	D-4	* JL108	D-5	* R032	C-2	R513	B-2		
* C116	B-4	C512	A-2	* CL119	B-3	* JL109	D-5	R043	D-2	R514	B-2		
* C117	A-3	C513	B-2	CL401	A-5	* JL110	B-4	* R044	C-1	R515	B-2		
* C118	B-3	C514	B-2	CL402	A-5	* JL111	D-5	R046	D-2	R516	B-2		
* C119	B-3	C515	B-2	CL501	A-1	* JL112	C-5	R057	C-2	R517	A-2		
* C120	B-3	C516	B-2	CL502	A-2	* JL113	B-5	R058	C-2	R519	B-2		
* C121	B-4	C517	B-2			* JL114	B-4	R059	C-2	R520	B-2		
* C122	B-3	C518	A-2	* CN001	D-1	* JL115	D-5	* R060	C-2	R521	B-2		
* C123	C-3	C519	A-2	CN301	D-3	* JL116	C-4	* R061	C-2	R522	B-2		
* C124	C-3	C520	B-2	CN401	A-5	* JL117	C-4	* R062	C-2	R524	A-2		
* C125	C-3	C521	B-1	CN501	A-1	* JL118	C-4	* R063	C-2	R526	B-1		
* C126	B-4	C522	A-2	CN601	A-3	* JL119	D-5	* R064	C-2	R527	B-1		
* C127	B-3	C524	B-1	* CN602	D-2	* JL120	C-4	R068	C-2	R535	B-3		
* C128	C-4	C527	A-3	CN651	B-5	* JL121	C-4	* R072	B-2	R536	A-3		
* C129	B-3	C528	B-4	CN701	B-1	* JL122	C-4	* R074	C-2	R537	B-3		
* C130	C-4	C529	A-4	* CN702	A-1	* JL124	D-4	* R075	C-2	R538	A-3		
* C131	C-4	C530	B-4	CN703	D-5	* JL125	D-4	* R076	D-2	R539	A-4		
* C132	C-4	C531	A-4	CN704	D-1	* JL126	D-5	* R077	D-2	R540	B-4		
* C133	C-3	C532	B-4	CN705	D-2	* JL127	D-4	* R078	B-3	R541	A-4		
* C134	C-3	C533	A-4	* CN706	C-1	* JL128	D-4	* R079	B-4	R542	A-4		
* C135	C-4	C534	B-3	CN707	A-2	JL301	B-3	* R080	A-4	R543	B-1		
* C136	C-4	C535	A-4			JL302	B-3	* R081	B-4	R544	B-2		
* C137	C-4	C536	A-3	CP301	B-4	JL303	D-4	* R082	A-4	R545	A-2		
* C138	C-4	C537	B-4			JL304	C-4	* R083	A-4	R546	B-2		
* C139	C-4	C538	A-3	D001	C-4	JL305	D-4	* R084	A-4	R547	B-2		
* C140	C-4	C539	B-2	D002	C-2	JL505	B-1	* R085	B-4	R548	B-2		
* C141	C-4	C540	B-2	D003	C-2	JL701	B-3	* R086	B-4	R549	A-2		
* C142	C-4	* C541	A-2	D006	C-1			* R087	B-4	* R553	A-2		
* C143	C-4	* C542	A-1	D007	C-1	L001	D-2	* R088	A-4	* R555	A-2		

5. REPAIR PARTS LIST

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
uF: μ F
- COILS
uH: μ H
- RESISTORS
All resistors are in ohms.
METAL: metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA..., μ PA...,
uPB..., μ PB..., uPC..., μ PC...,
uPD..., μ PD...

When indicating parts by reference number,
please include the board name.

The components identified by mark \triangle or
dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque
 \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant
le numéro spécifié.

Language that can be selected about SY-150 board

	Area	English	French	German	Spanish	Italian	Portugal	Simplified Chinese	Traditional Chinese	Arabic	Dutch	Russian	Swedish	Korean	Norwegian	Danish	Finnish	Polish	Hungarian	Czech	Persian	Thai
GP2	US CND AUS Vietnam	●	●		●	●		●	●													
GP3	AEP UK	●	●	●	●	●	●			●	●	●	●	●	●	●	●	●	●	●		
GP4	E AR JE HK CH KR	●			●		●	●	●	●			●						●	●		

• Abbreviation

- AR : Argentine model
- AUS : Australian model
- CH : Chinese model
- CND : Canadian model
- HK : Hong Kong model
- JE : Tourist model
- KR : Korea model

5-2. ELECTRICAL PARTS LIST

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>					<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>					
	A-1176-916-A	SY-150 BOARD, COMPLETE (SERVICE)(GP2)		C119	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V					
	A-1176-917-A	SY-150 BOARD, COMPLETE (SERVICE)(GP3)		C120	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V					
	A-1176-918-A	SY-150 BOARD, COMPLETE (SERVICE)(GP4)		C121	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V					
	***** (Refer to the table of page 5-1 about language of SY-150 board.) (This complete board is including CP301(CH-169 board.)					C122	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V			
CP301	A-1106-355-A	CH-169 BOARD, COMPLETE					C123	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
		< BATTERY >					C125	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
△BT001	1-756-539-21	BATTERY, LITHIUM SECONDARY					C126	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
		< CAPACITOR >					C127	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C003	1-165-908-11	CERAMIC CHIP	1uF	10%	10V		C128	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C004	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V		C129	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C005	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V		C130	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C006	1-100-966-91	CERAMIC CHIP	10uF	20%	10V		C131	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C010	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V		C132	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C011	1-164-852-11	CERAMIC CHIP	12PF	5%	50V		C133	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C014	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V		C134	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C015	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V		C135	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C016	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V		C136	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C017	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V		C137	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C019	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V		C138	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C020	1-165-908-11	CERAMIC CHIP	1uF	10%	10V		C139	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
* C021	1-112-298-91	CERAMIC CHIP	1uF	10%	16V		C140	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C023	1-164-874-11	CERAMIC CHIP	100PF	5%	50V		C142	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C024	1-165-908-11	CERAMIC CHIP	1uF	10%	10V		C145	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C025	1-100-591-91	CERAMIC CHIP	1uF	10%	25V		C149	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C027	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V		C150	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C028	1-165-908-11	CERAMIC CHIP	1uF	10%	10V		C151	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C029	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V		C152	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C031	1-100-671-11	CERAMIC CHIP	4.7uF	20%	25V		C153	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C033	1-165-908-11	CERAMIC CHIP	1uF	10%	10V		C203	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V		
C034	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V		C204	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C035	1-165-908-11	CERAMIC CHIP	1uF	10%	10V		C205	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C036	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V		C206	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C038	1-165-908-11	CERAMIC CHIP	1uF	10%	10V		C207	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C040	1-127-820-11	CERAMIC CHIP	4.7uF	10%	16V		C208	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C049	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V		C209	1-100-786-91	TANTAL. CHIP	22uF	20%	6.3V		
C055	1-100-591-91	CERAMIC CHIP	1uF	10%	25V		C210	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C057	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C211	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C063	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V		C212	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C101	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V		C213	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C102	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V		C214	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C103	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C301	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V		
C105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C302	1-104-851-11	TANTAL. CHIP	10uF	20%	10V		
C106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C303	1-137-988-91	CERAMIC CHIP	1uF	10%	35V		
C107	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C304	1-113-992-11	TANTAL. CHIP	3.3uF	20%	35V		
C108	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C306	1-119-751-11	TANTAL. CHIP	22uF	20%	16V		
C109	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C307	1-100-505-91	CERAMIC CHIP	0.1uF	20%	16V		
C110	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V		C308	1-113-992-11	TANTAL. CHIP	3.3uF	20%	35V		
C111	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V		C314	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
C114	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C315	1-128-964-91	TANTAL. CHIP	100uF	20%	6.3V		
C115	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C316	1-100-539-91	TANTAL. CHIP	47uF	20%	6.3V		
C116	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C317	1-100-539-91	TANTAL. CHIP	47uF	20%	6.3V		
C117	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V		C318	1-165-908-11	CERAMIC CHIP	1uF	10%	10V		
C118	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C319	1-165-908-11	CERAMIC CHIP	1uF	10%	10V		
							C401	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		
							C402	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		

Ref. No.	Part No.	Description			Ref. No.	Part No.	Description					
C403	1-100-663-11	TANTAL. CHIP	22uF	20%	10V	C704	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	
C501	1-165-875-11	CERAMIC CHIP	10uF	10%	10V	C705	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	
C502	1-135-993-11	TANTAL. CHIP	33uF	20%	10V	C706	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C503	1-165-884-91	CERAMIC CHIP	2.2uF	10%	6.3V	C707	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V	
C505	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C716	1-165-897-11	TANTAL. CHIP	22uF	20%	10V	
C508	1-165-908-11	CERAMIC CHIP	1uF	10%	10V						< CONNECTOR >	
C510	1-165-897-11	TANTAL. CHIP	22uF	20%	10V	CN001	1-580-057-11	PIN, CONNECTOR (SMD) 4P				
C511	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	* CN301	1-816-057-51	CONNECTOR, FPC (ZIF) 39P				
C512	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	* CN401	1-816-057-51	CONNECTOR, FPC (ZIF) 39P				
C513	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V	* CN501	1-816-645-51	FFC/FPC CONNECTOR (LIF) 14P				
C514	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V	CN601	1-794-375-21	PIN, CONNECTOR 2P				
C515	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	CN602	1-794-375-21	PIN, CONNECTOR 2P				
C517	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	* CN651	1-816-645-51	FFC/FPC CONNECTOR (LIF) 14P				
C518	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V	CN701	1-819-254-51	CONNECTOR, FFC/FPC (ZIF) 12P				
C519	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V	* CN702	1-815-333-51	CONNECTOR, FPC (ZIF) 33P				
C522	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	* CN703	1-816-649-51	FFC/FPC CONNECTOR (LIF) 22P				
C527	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	CN704	1-819-257-51	CONNECTOR, FFC/FPC (ZIF) 14P				
C528	1-100-159-91	CERAMIC CHIP	22uF	10%	6.3V	* CN705	1-816-643-51	FFC/FPC CONNECTOR (LIF) 10P				
C529	1-100-159-91	CERAMIC CHIP	22uF	10%	6.3V	CN706	1-819-254-51	CONNECTOR, FFC/FPC (ZIF) 12P				
C531	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V						< DIODE >	
C532	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V	D001	6-500-813-01	DIODE MA2SD32008SO				
C533	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V	D002	6-500-813-01	DIODE MA2SD32008SO				
C534	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	D003	6-500-813-01	DIODE MA2SD32008SO				
C535	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	D301	8-719-056-23	DIODE MA2S111-(K8).SO				
C536	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	D501	6-500-813-01	DIODE MA2SD32008SO				
C537	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	D502	6-500-813-01	DIODE MA2SD32008SO				
C538	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	D601	8-719-056-23	DIODE MA2S111-(K8).SO				
C541	1-165-884-91	CERAMIC CHIP	2.2uF	10%	6.3V	D651	6-500-776-01	DIODE MAZW068H0LS0				
C542	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	D652	6-500-776-01	DIODE MAZW068H0LS0				
C543	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	D653	8-719-056-54	DIODE MAZS068008SO				
C544	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	D654	8-719-056-23	DIODE MA2S111-(K8).SO				
C545	1-128-934-61	CERAMIC CHIP	0.33uF	10%	10V						< FUSE >	
C546	1-128-934-61	CERAMIC CHIP	0.33uF	10%	10V							
C601	1-100-352-91	CERAMIC CHIP	1uF	20%	16V							
C602	1-100-352-91	CERAMIC CHIP	1uF	20%	16V	▲F001	1-576-416-21	FUSE (2A/36V)				
C603	1-100-415-11	CERAMIC CHIP	0.47uF	10%	6.3V	▲F002	1-576-416-21	FUSE (2A/36V)				
C604	1-100-352-91	CERAMIC CHIP	1uF	20%	16V	▲F003	1-576-570-21	FUSE, MICRO (1608 TYPE)(0.63A/32V)				
C605	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V						< FERRITE BEAD >	
C606	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V							
C607	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V	FB001	1-469-324-21	INDUCTOR (EMI FERRITE) (2012)				
C608	1-100-352-91	CERAMIC CHIP	1uF	20%	16V	FB101	1-500-284-21	INDUCTOR, FERRITE BEAD				
C609	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	FB102	1-216-864-11	SHORT CHIP 0 (Note2)				
C610	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V	FB103	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)				
C611	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	FB104	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)				
C612	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	FB105	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)				
C613	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	FB106	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)				
C614	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	FB107	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)				
C615	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	FB108	1-469-581-21	INDUCTOR, FERRITE BEAD (1005)				
C616	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	FB301	1-469-082-21	INDUCTOR, FERRITE BEAD (1005)				
C617	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	FB302	1-469-082-21	INDUCTOR, FERRITE BEAD (1005)				
C618	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	FB308	1-400-331-11	FERRITE, EMI (SMD) (1005)				
C619	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	FB309	1-218-990-81	SHORT CHIP 0 (Note2)				
C620	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	FB651	1-469-580-11	INDUCTOR, FERRITE BEAD (1005)				
C701	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V	FB701	1-469-580-11	INDUCTOR, FERRITE BEAD (1005)				

Note 2 :

SHORT CHIP is mounted to the location where FB102 and FB309 are printed.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	
< IC >				< RESISTOR >			
* IC001	6-709-120-01	IC	SC901571VOR2	R001	1-218-935-11	RES-CHIP	33
IC101	8-753-239-15	IC	CXD3188AGG-T6	R002	1-218-949-11	RES-CHIP	470
IC201	Not supplied	IC	PH28F320W30TD70-A01 (Note1)	R004	1-218-983-11	RES-CHIP	330K
* IC202	6-709-151-01	IC	KFG5616U1A-DIB5T (Note2)	R005	1-219-570-11	METAL CHIP	10M
* IC203	6-708-803-01	IC	K4M56323PG-HG75T	R007	1-218-990-81	SHORT CHIP	0
IC301	6-703-977-01	IC	R1114Q331D-TR-FA	R009	1-218-990-81	SHORT CHIP	0
IC401	6-708-988-01	IC	LV8053LG-TLM-E	R012	1-218-990-81	SHORT CHIP	0
IC501	6-707-643-01	IC	TPS61027DRCR	R013	1-208-635-11	METAL CHIP	10
* IC503	6-708-445-01	IC	R1114Q291D-TR-FA	R016	1-208-911-11	METAL CHIP	10K
* IC504	6-709-026-01	IC	R2J30500LG	R017	1-218-990-81	SHORT CHIP	0
* IC505	6-708-457-01	IC	R1114Q151D-TR-FA	R018	1-208-935-11	METAL CHIP	100K
IC506	8-759-489-19	IC	uPC6756GR-8JG-E2	R020	1-218-989-11	RES-CHIP	1M
* IC507	6-709-332-01	IC	TK70685HCL-G	R023	1-208-927-11	METAL CHIP	47K
* IC601	6-708-096-01	IC	NJW1330RB1 (TE2)	R029	1-218-935-11	RES-CHIP	33
IC602	6-707-336-01	IC	BH6414GLU-E2	R030	1-218-929-11	RES-CHIP	10
* IC603	6-708-445-01	IC	R1114Q291D-TR-FA	R031	1-218-977-11	RES-CHIP	100K
* IC701	6-708-464-01	IC	R1114Q251D-TR-FA	R032	1-218-929-11	RES-CHIP	10
< COIL >				R057	1-218-990-81	SHORT CHIP	0
L001	1-469-967-21	INDUCTOR	10uH	R059	1-218-989-11	RES-CHIP	1M
L003	1-456-995-22	INDUCTOR	4.7uH	R068	1-218-965-11	RES-CHIP	10K
L004	1-456-995-22	INDUCTOR	4.7uH	R072	1-216-864-11	SHORT CHIP	0
L005	1-456-995-22	INDUCTOR	4.7uH	R074	1-218-990-81	SHORT CHIP	0
L006	1-456-995-22	INDUCTOR	4.7uH	R075	1-218-990-81	SHORT CHIP	0
L008	1-456-995-22	INDUCTOR	4.7uH	R076	1-218-990-81	SHORT CHIP	0
L009	1-456-995-22	INDUCTOR	4.7uH	R103	1-218-990-81	SHORT CHIP	0
L011	1-469-555-21	INDUCTOR	10uH	R106	1-208-679-11	METAL CHIP	680
L101	1-469-967-21	INDUCTOR	10uH	R109	1-218-973-11	RES-CHIP	47K
L102	1-469-967-21	INDUCTOR	10uH	R112	1-208-683-11	METAL CHIP	1K
L201	1-400-588-11	INDUCTOR	10uH	R114	1-218-985-11	RES-CHIP	470K
L301	1-469-561-21	INDUCTOR	100uH	R115	1-208-683-11	METAL CHIP	1K
L302	1-469-967-21	INDUCTOR	10uH	R117	1-218-941-81	RES-CHIP	100
L303	1-400-317-21	INDUCTOR	100uH	R118	1-218-941-81	RES-CHIP	100
L304	1-469-967-21	INDUCTOR	10uH	R119	1-218-941-81	RES-CHIP	100
L503	1-456-995-22	INDUCTOR	4.7uH	R120	1-218-941-81	RES-CHIP	100
L601	1-469-555-21	INDUCTOR	10uH	R121	1-218-939-11	RES-CHIP	68
L602	1-400-588-11	INDUCTOR	10uH	R122	1-218-939-11	RES-CHIP	68
L701	1-412-006-31	INDUCTOR	10uH	R125	1-218-965-11	RES-CHIP	10K
L702	1-412-006-31	INDUCTOR	10uH	R126	1-218-965-11	RES-CHIP	10K
< LINE FILTER >				R127	1-218-965-11	RES-CHIP	10K
LF651	1-456-583-11	COMMON MODE CHOKE COIL		R128	1-218-965-11	RES-CHIP	10K
< TRANSISTOR >				R129	1-218-965-11	RES-CHIP	5%
Q001	8-729-056-01	TRANSISTOR	MCH3405-TL-E	R130	1-218-965-11	RES-CHIP	10K
Q002	6-550-351-01	TRANSISTOR	CPH5812-S-TL-E	R131	1-218-965-11	RES-CHIP	10K
Q003	6-551-304-01	TRANSISTOR	MTM231230LSO	R132	1-218-965-11	RES-CHIP	10K
Q004	8-729-053-76	TRANSISTOR	CPH5802-TL-E-S	R133	1-208-935-11	METAL CHIP	100K
Q301	8-729-053-58	TRANSISTOR	RN1904FE (TPLR3)	R135	1-208-911-11	METAL CHIP	10K
Q503	6-550-094-01	TRANSISTOR	EMH2-T2R	R136	1-218-973-11	RES-CHIP	47K
Q504	6-550-239-01	TRANSISTOR	DTA144EMT2L	R137	1-208-943-11	METAL CHIP	220K
				R138	1-218-965-11	RES-CHIP	10K
				R139	1-218-965-11	RES-CHIP	10K
				R140	1-218-981-11	RES-CHIP	220K
				R141	1-218-981-11	RES-CHIP	220K
				R144	1-218-965-11	RES-CHIP	10K
				R145	1-218-965-11	RES-CHIP	10K
				R148	1-218-953-11	RES-CHIP	1K

Note 1 :
A service for IC201 is not available because an adjustment is required before replacement.

Note 2:
When IC202 is replaced, formatting is required.
Execute formatting by referring to Supplement-1.

Ref. No.	Part No.	Description				Ref. No.	Part No.	Description			
R151	1-218-990-81	SHORT CHIP	0			R605	1-218-985-11	RES-CHIP	470K	5%	1/16W
R153	1-218-965-11	RES-CHIP	10K	5%	1/16W	R606	1-218-972-11	RES-CHIP	39K	5%	1/16W
R301	1-218-857-11	METAL CHIP	2.7K	0.5%	1/10W	R607	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R302	1-218-859-11	METAL CHIP	3.3K	0.5%	1/10W	R651	1-218-965-11	RES-CHIP	10K	5%	1/16W
R304	1-218-977-11	RES-CHIP	100K	5%	1/16W	R652	1-218-965-11	RES-CHIP	10K	5%	1/16W
R308	1-218-977-11	RES-CHIP	100K	5%	1/16W	R653	1-216-295-91	SHORT CHIP	0		
R309	1-218-990-81	SHORT CHIP	0			R658	1-216-864-11	SHORT CHIP	0		
R310	1-218-935-11	RES-CHIP	33	5%	1/16W	R747	1-218-990-81	SHORT CHIP	0		
R311	1-208-455-11	RES-CHIP	5.6	5%	1/16W	R749	1-218-990-81	SHORT CHIP	0		
R312	1-208-455-11	RES-CHIP	5.6	5%	1/16W						< SENSOR >
R313	1-208-455-11	RES-CHIP	5.6	5%	1/16W	* SE501	1-479-022-51	SENSOR, ANGULAR VELOCITY (PITCH)			
R314	1-208-455-11	RES-CHIP	5.6	5%	1/16W	* SE502	1-479-022-61	SENSOR, ANGULAR VELOCITY (YAW)			
R316	1-218-990-81	SHORT CHIP	0								< VIBRATOR >
R318	1-218-990-81	SHORT CHIP	0			X001	1-767-994-23	VIBRATOR, CRYSTAL (32.768kHz)			
R319	1-218-990-81	SHORT CHIP	0			* X101	1-813-403-21	QUARTZ CRYSTAL OSCILLATOR (12MHz)			
R320	1-218-990-81	SHORT CHIP	0			* X102	1-813-712-21	QUARTZ CRYSTAL OSCILLATOR (33.75MHz)			
R321	1-218-990-81	SHORT CHIP	0								
R409	1-208-715-11	METAL CHIP	22K	0.5%	1/16W						
R410	1-208-715-11	METAL CHIP	22K	0.5%	1/16W						
R411	1-208-927-11	METAL CHIP	47K	0.5%	1/16W						
R432	1-211-969-11	METAL CHIP	10	0.5%	1/10W						
R433	1-211-969-11	METAL CHIP	10	0.5%	1/10W						
R434	1-211-969-11	METAL CHIP	10	0.5%	1/10W						
R435	1-211-969-11	METAL CHIP	10	0.5%	1/10W						
R437	1-218-948-11	RES-CHIP	390	5%	1/16W						
R438	1-218-948-11	RES-CHIP	390	5%	1/16W						
R509	1-208-721-11	METAL CHIP	39K	0.5%	1/16W						
R511	1-218-970-11	RES-CHIP	27K	5%	1/16W						
R512	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W						
R513	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W						
R515	1-208-911-11	METAL CHIP	10K	0.5%	1/16W						
R517	1-208-721-11	METAL CHIP	39K	0.5%	1/16W						
R519	1-218-970-11	RES-CHIP	27K	5%	1/16W						
R520	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W						
R521	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W						
R524	1-208-911-11	METAL CHIP	10K	0.5%	1/16W						
R526	1-218-965-11	RES-CHIP	10K	5%	1/16W						
R527	1-218-990-81	SHORT CHIP	0								
R535	1-218-989-11	RES-CHIP	1M	5%	1/16W						
R536	1-218-989-11	RES-CHIP	1M	5%	1/16W						
R537	1-218-965-11	RES-CHIP	10K	5%	1/16W						
R538	1-218-965-11	RES-CHIP	10K	5%	1/16W						
R539	1-218-969-11	RES-CHIP	22K	5%	1/16W						
R540	1-218-969-11	RES-CHIP	22K	5%	1/16W						
R541	1-218-969-11	RES-CHIP	22K	5%	1/16W						
R542	1-218-969-11	RES-CHIP	22K	5%	1/16W						
R543	1-218-977-11	RES-CHIP	100K	5%	1/16W						
R544	1-218-977-11	RES-CHIP	100K	5%	1/16W						
R545	1-218-977-11	RES-CHIP	100K	5%	1/16W						
R546	1-218-977-11	RES-CHIP	100K	5%	1/16W						
R547	1-218-977-11	RES-CHIP	100K	5%	1/16W						
R548	1-218-977-11	RES-CHIP	100K	5%	1/16W						
R549	1-218-977-11	RES-CHIP	100K	5%	1/16W						
R553	1-218-977-11	RES-CHIP	100K	5%	1/16W						
R555	1-218-985-11	RES-CHIP	470K	5%	1/16W						
R557	1-218-967-11	RES-CHIP	15K	5%	1/16W						
R558	1-218-967-11	RES-CHIP	15K	5%	1/16W						
R602	1-218-929-11	RES-CHIP	10	5%	1/16W						
R603	1-218-939-11	RES-CHIP	68	5%	1/16W						
R604	1-218-955-11	RES-CHIP	1.5K	5%	1/16W						

SERVICE MANUAL

Ver. 1.1 2006. 07

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model
Argentina Model
Hong Kong Model
Korea Model
Tourist Model*

SUPPLEMENT-1

File this supplement-1 with the service manual.
(DI06-030)

- Addition of formatting procedure after replacement of IC202

1. SERVICE NOTE

Page	Added contents
1-1E	<p>Formatting Procedure after Replacement of IC202</p> <ol style="list-style-type: none">1. Insert an MS (Memory Stick Duo) into the machine and turn ON the power. Connect the machine to SEUS while the message “Internal memory error” is being displayed. * Because the machine is in the error state, an MS is required to make the USB communication.2. Select page: 90, address: 32 and set data: 01.3. Remove the MS. * When the MS is removed, “Initial format” starts. The access LED lights for 3 to 5 seconds, and the error display changes to “Format error”.4. Select and execute “Format” from the setup menu. (The access LED lights for 15 seconds.)5. When the access LED lights off, it indicates that the formatting is completed. Confirm to see that the error indication has disappeared. Remove the SEUS connection and turn OFF the power.

SONY®

LEVEL 3

SERVICE MANUAL

Ver. 1.3 2006. 10

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model
Argentina Model
Hong Kong Model
Korea Model
Tourist Model*

SUPPLEMENT-2

File this supplement-2 with the service manual.
(DI06-116)

- Change of boards suffix number (SY-150)
- Change of repair parts list

• Change of repair parts list

5. REPAIR PARTS LIST

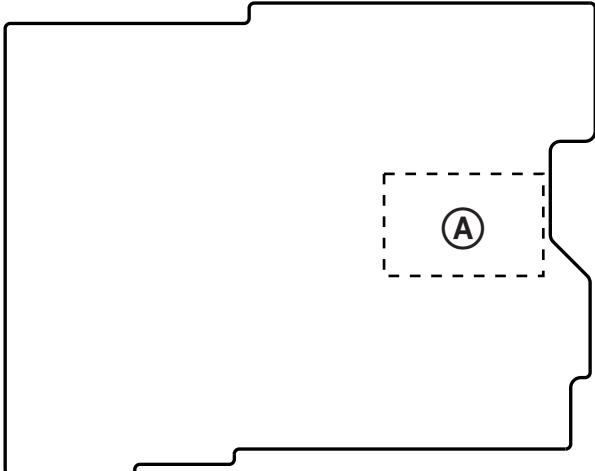
5-2. ELECTRICAL PARTS LIST

 : Changed portion

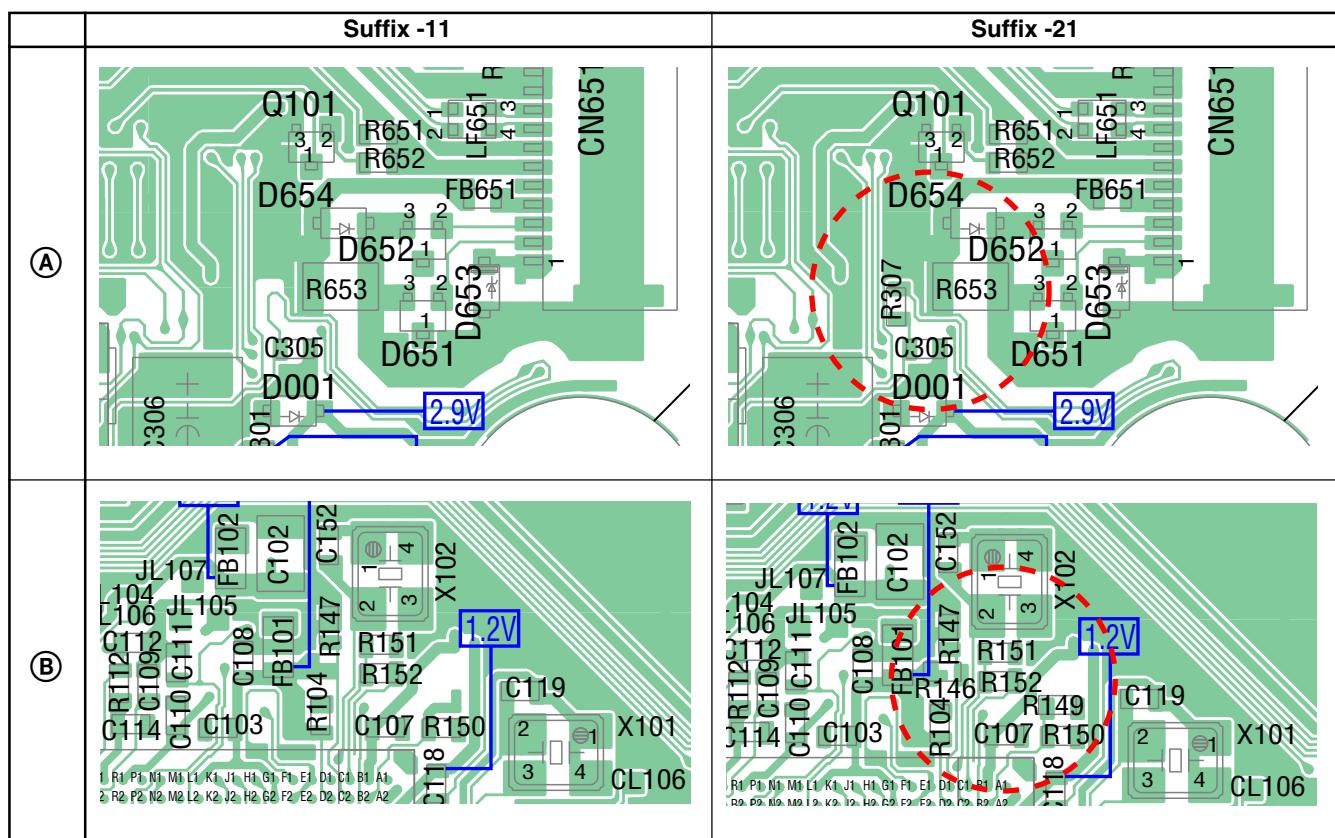
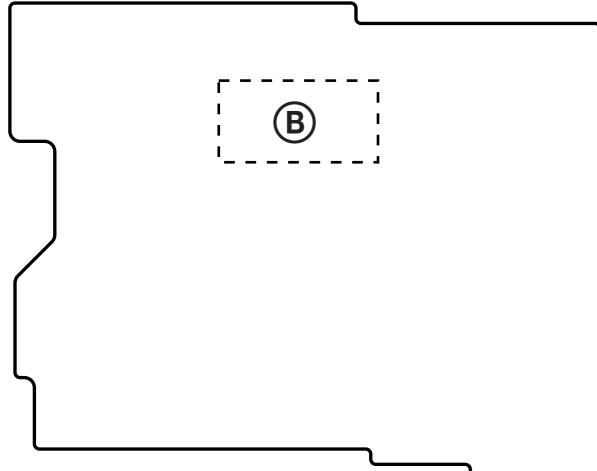
Page	Before change	After change												
5-12	SY-150 BOARD <table><thead><tr><th>Ref. No.</th><th>Part No.</th><th>Description</th></tr></thead><tbody><tr><td>△ BT001</td><td>1-756-539-21</td><td>BATTERY, LITHIUM SECONDARY</td></tr></tbody></table>	Ref. No.	Part No.	Description	△ BT001	1-756-539-21	BATTERY, LITHIUM SECONDARY	 <table><thead><tr><th>Ref. No.</th><th>Part No.</th><th>Description</th></tr></thead><tbody><tr><td>△ BT001</td><td>1-528-999-61</td><td>BATTERY, LITHIUM SECONDARY</td></tr></tbody></table>	Ref. No.	Part No.	Description	△ BT001	1-528-999-61	BATTERY, LITHIUM SECONDARY
Ref. No.	Part No.	Description												
△ BT001	1-756-539-21	BATTERY, LITHIUM SECONDARY												
Ref. No.	Part No.	Description												
△ BT001	1-528-999-61	BATTERY, LITHIUM SECONDARY												
5-13	FB651 1-469-580-11 INDUCTOR, FERRITE BEAD (1005) FB701 1-469-580-11 INDUCTOR, FERRITE BEAD (1005)	FB651 1-469-580 ₁₂₁ INDUCTOR, FERRITE BEAD (1005) FB701 1-469-580 ₁₂₁ INDUCTOR, FERRITE BEAD (1005)												

• How to identify and difference points of the printed wiring boards (SY-150 BOARD)

SY-150 BOARD (SIDE A)



SY-150 BOARD (SIDE B)



• Change of boards suffix number (SY-150)

4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS

→ : Added portion

Page	Suffix -11	Suffix -21
4-26	SY-150 BOARD (2/8) (Location: H-8) 	

: Changed portion : Added portion

Page	Suffix -11	Suffix -21
4-27	SY-150 BOARD (3/8) (Location: C-2 to D-3) 	
4-35	SY-150 BOARD (7/8) (Location: E-3 to F-4) 	
4-38	SY-150 BOARD (8/8) (Location: K-12) 	

5. REPAIR PARTS LIST

5-2. ELECTRICAL PARTS LIST

: Added portion

Page	Suffix -11	Suffix -21																					
5-14	SY-150 BOARD Ref. No. Part No. Description	<table border="1"> <thead> <tr> <th>Ref. No.</th> <th>Part No.</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Q001</td> <td>MCH3405-TL-E</td> <td>SV REG</td> </tr> <tr> <td>Q003</td> <td>MTM231230LSO</td> <td></td> </tr> <tr> <td>C036</td> <td>10u 6.3V</td> <td></td> </tr> </tbody> </table>	Ref. No.	Part No.	Description	Q001	MCH3405-TL-E	SV REG	Q003	MTM231230LSO		C036	10u 6.3V										
Ref. No.	Part No.	Description																					
Q001	MCH3405-TL-E	SV REG																					
Q003	MTM231230LSO																						
C036	10u 6.3V																						
5-15		<table border="1"> <thead> <tr> <th>Ref. No.</th> <th>Part No.</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Q702</td> <td>8-729-054-52</td> <td>TRANSISTOR UP04216008SO</td> </tr> <tr> <td>R146</td> <td>1-216-864-11</td> <td>SHORT CHIP 0</td> </tr> <tr> <td>R149</td> <td>1-216-864-11</td> <td>SHORT CHIP 0</td> </tr> <tr> <td>R307</td> <td>1-218-990-11</td> <td>SHORT CHIP 0</td> </tr> <tr> <td>R751</td> <td>1-218-977-11</td> <td>RES-CHIP 100K 5% 1/16W</td> </tr> <tr> <td>R752</td> <td>1-218-945-11</td> <td>RES-CHIP 220 5% 1/16W</td> </tr> </tbody> </table>	Ref. No.	Part No.	Description	Q702	8-729-054-52	TRANSISTOR UP04216008SO	R146	1-216-864-11	SHORT CHIP 0	R149	1-216-864-11	SHORT CHIP 0	R307	1-218-990-11	SHORT CHIP 0	R751	1-218-977-11	RES-CHIP 100K 5% 1/16W	R752	1-218-945-11	RES-CHIP 220 5% 1/16W
Ref. No.	Part No.	Description																					
Q702	8-729-054-52	TRANSISTOR UP04216008SO																					
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R752	1-218-945-11	RES-CHIP 220 5% 1/16W																					

[Description of main button functions on toolbar of the Adobe Acrobat Reader Ver5.0 (for Windows)]



Printing a text

1. Click the Print button
2. Specify a printer, print range, number of copies, and other options, and then click [OK].

Application of printing:

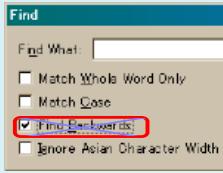
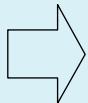
To set a range to be printed within a page, select the graphic selection tool and drag on the page to enclose a range to be printed, and then click the Print button.

Finding a text

1. Click the Find button
2. Enter a character string to be found into a text box, and click the [Find]. (Specify the find options as necessary)

Application to the Service Manual:

To execute “find” from current page toward the previous pages, select the check box “Find Backward” and then click the “Find”.



3. Open the find dialog box again, and click the [Find Again] and you can find the matched character strings displayed next. (Character strings entered previously are displayed as they are in the text box.)

Application to the Service Manual:

The parts on the drawing pages (block diagrams, circuit diagrams, printed circuit boards) and parts list pages in a text can be found using this find function. For example, find a Ref. No. of IC on the block diagram, and click the [Find Again] continuously, so that you can move to the Ref. No. of IC on the circuit diagram or printed circuit board diagram successively.

Note: The find function may not be applied to the Service Manual depending on the date of issue.

Switching a page

- To move to the first page, click the
- To move to the last page, click the
- To move to the previous page, click the
- To move to the next page, click the

Reversing the screens displayed once

- To reverse the previous screens (operation) one by one, click the
- To advance the reversed screens (operation) one by one, click the

Application to the Service Manual:

This function allows you to go and back between circuit diagram and printed circuit board diagram, and accordingly it will be convenient for the voltage check.

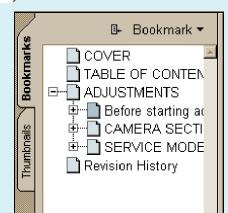
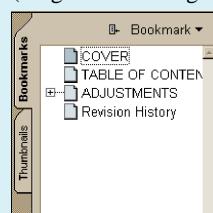
Moving with link

1. Select either palm tool , zoom tool , text selection tool , or graphic selection tool .
2. Place the pointer in the position in a text where the link exists (such as a button on cover and the table of contents page, or blue characters on the removal flowchart page or drawing page), and the pointer will change to the forefinger form .
3. Then, click the link. (You will go to the link destination.)

Moving with bookmark:

Click an item (text) on the bookmark pallet. and you can move to the link destination. Also, clicking can display the hidden items.

(To go back to original state, click



Zooming or rotating the screen display

“Zoom in/out”

- Click the triangle button in the zoom control box to select the display magnification. Or, you may click or for zooming in or out.



“Rotate”

- Click rotate tool , and the page then rotates 90 degrees each.

Application to the Service Manual:

The printed circuit board diagram you see now can be changed to the same direction as the set.

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2006.02	Official Release	—	—
1.1	2006.07	Supplement-1 (DI06-030)	<ul style="list-style-type: none">• Addition of formatting procedure after replacement of IC202S.M. correction: Page 4-29, 5-14	Yes
1.2	2006.10	Correction-1	<ul style="list-style-type: none">• Correction of printed wiring boardsS.M. correction: Page 4-52, 4-54	Yes
1.3	2006.10	Supplement-2 (DI06-116)	<ul style="list-style-type: none">• Change of boards suffix number (SY-150)• Change of repair parts list	No