

DSC-H7/H9

SERVICE MANUAL

LEVEL 3

Ver 1.1 2007.05

Revision History

Revised-1

Replace the previously issued
SERVICE MANUAL 9-852-203-11
with this Manual.

Internal memory
ON BOARD



Photo: DSC-H7 Black Model

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Hong Kong Model
Chinese Model
Korea Model
Argentine Model
Brazilian Model
Tourist Model
Japanese Model

Link

- | | |
|----------------------|-------------------------|
| • SERVICE NOTE | • PRINTED WIRING BOARDS |
| • SCHEMATIC DIAGRAMS | • REPAIR PARTS LIST |

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.

DIGITAL STILL CAMERA

SONY®

Model information table

Model	DSC-H7/Silver	DSC-H7/Black	DSC-H9/Silver	DSC-H9/Black
Destination	US, CND, AEP, UK, E, AUS, HK, CH, KR, AR, J, JE	US, CND, AEP, UK, E, AUS, HK, CH, KR, J, JE	US, CND, AEP, UK, E, AUS, HK, CH, KR, JE	US, CND, AEP, UK, E, AUS, HK, CH, KR, AR, BR, JE
LCD	2.5 inch	2.5 inch	3.0 inch	3.0 inch
CK board	CK-180, CK-181	CK-180, CK-181	CK-179, CK-182	CK-179, CK-182
MS board	MS-364	MS-364	MS-366	MS-366
PL board	PL-046	PL-046	PL-047	PL-047
SW board	SW-500	SW-500	SW-499	SW-499

- Abbreviation

AR : Argentine model
 AUS : Australian model
 BR : Brazilian model
 CH : Chinese model
 CND : Canadian model
 HK : Hong Kong model
 J : Japanese model
 JE : Tourist model
 KR : Korea model

CAUTION

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

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ▲ OR DOTTED LINE WITH MARK ▲ 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 ▲ 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.

SAFETY CHECK-OUT

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

- Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
- Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
- Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
- Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
- Check the B+ voltage to see it is at the values specified.
- 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.

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1. SERVICE NOTE

1-4. METHOD FOR COPYING OR ERASING THE DATA IN INTERNAL MEMORY

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

Note: When replacing the SY-177 board, erase the data in internal memory of the board before replacement.

Method for Copying the Data in Internal Memory

Copy

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

- ① Insert a “Memory Stick Duo” having 32 MB or larger capacity.
- ② Select [Copy] with $\Delta/\nabla/\blacktriangle/\blacktriangleright$ on the control button, then press ●.
The message “All data in internal memory will be copied” appears.
- ③ Select [OK] with \blacktriangle , then press ●.
Copying starts.

To cancel the copying

Select [Cancel] in step ③, then press ●.

- Use a fully charged battery pack. If you attempt to copy image files using a battery pack with little remaining charge, the battery pack 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 Duo” after copying, then execute the [Format] command in [Internal Memory Tool].
- When you copy the data in the internal memory to the “Memory Stick Duo”, all the data will be copied. You cannot choose a specific folder on the “Memory Stick Duo” as the destination for the data to be copied.
- Even if you copy data, a DPOF (Print order) mark is not copied.

Method for Formatting the Internal Memory

This item does not appear when a “Memory Stick Duo” is inserted in the camera.

Format

Formats the internal memory.

- Note that formatting irrevocably erases all data in the internal memory, including even protected images.
- ① Select [Format] with $\Delta/\nabla/\blacktriangle/\blacktriangleright$ on the control button, then press ●.
The message “All data in internal memory will be erased” appears.
 - ② Select [OK] with \blacktriangle , then press ●.
The format is completed.

To cancel the formatting

Select [Cancel] in step ②, then press ●.

4-2. SCHEMATIC DIAGRAMS

Link

• SY-177 BOARD (1/7) (LENS DRIVE)	• SY-177 BOARD (6/7) (VIDEO/AUDIO AMP)
• SY-177 BOARD (2/7) (CAMERA A/D CONV.)	• SY-177 BOARD (7/7) (PITCH/YAW SENSOR AMP)
• SY-177 BOARD (3/7) (CAMERA DSP/SYSTEM CONTROL(1))	• DD-272 BOARD (1/3) (DC-DC CONVERTER)
• SY-177 BOARD (4/7) (CAMERA DSP/SYSTEM CONTROL(2))	• DD-272 BOARD (2/3) (DC-DC CONVERTER, SYSTEM CONTROL)
• SY-177 BOARD (5/7) (CAMERA DSP/SYSTEM CONTROL(3))	• DD-272 BOARD (3/3) (FLASH/CHARGE CONTROL)

- COMMON NOTE FOR SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS

4. PRINTED WIRING BOARDS AND 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.

Example	C541 22U TA A	L452 10UH 2520
Kinds of capacitor		External dimensions (mm)

Case size

- 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.
- : not use circuit

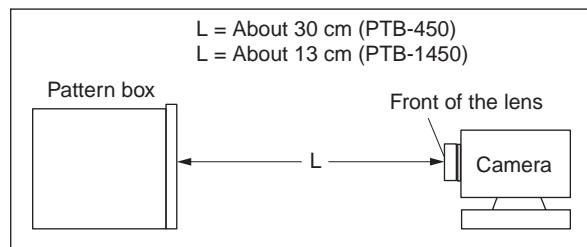
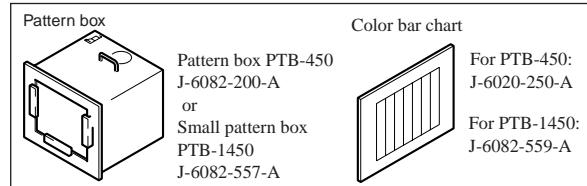
(Measuring conditions voltage and waveform)

- Voltages are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.
(VOM of DC 10 MΩ 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.

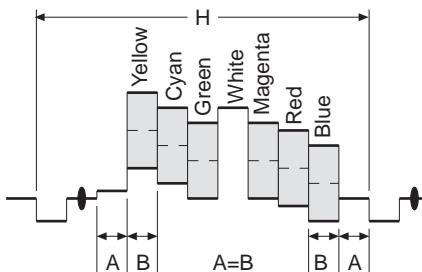


Fig. a (Video output terminal output waveform)

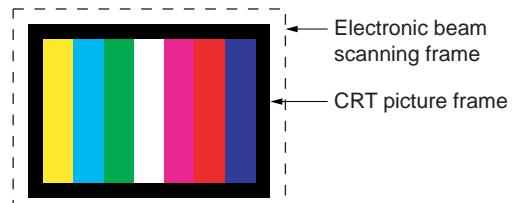


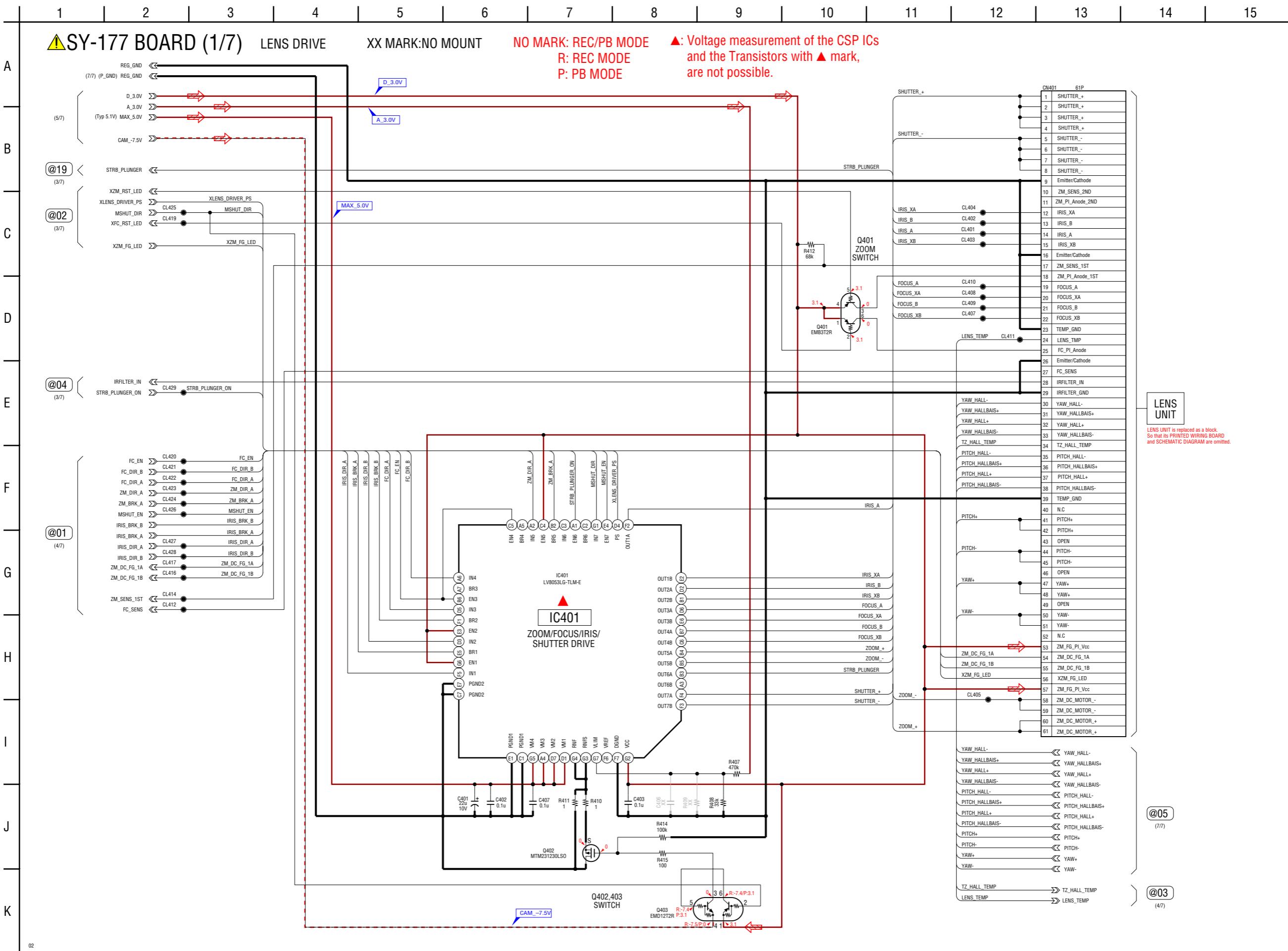
Fig. b (Picture on monitor TV)

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

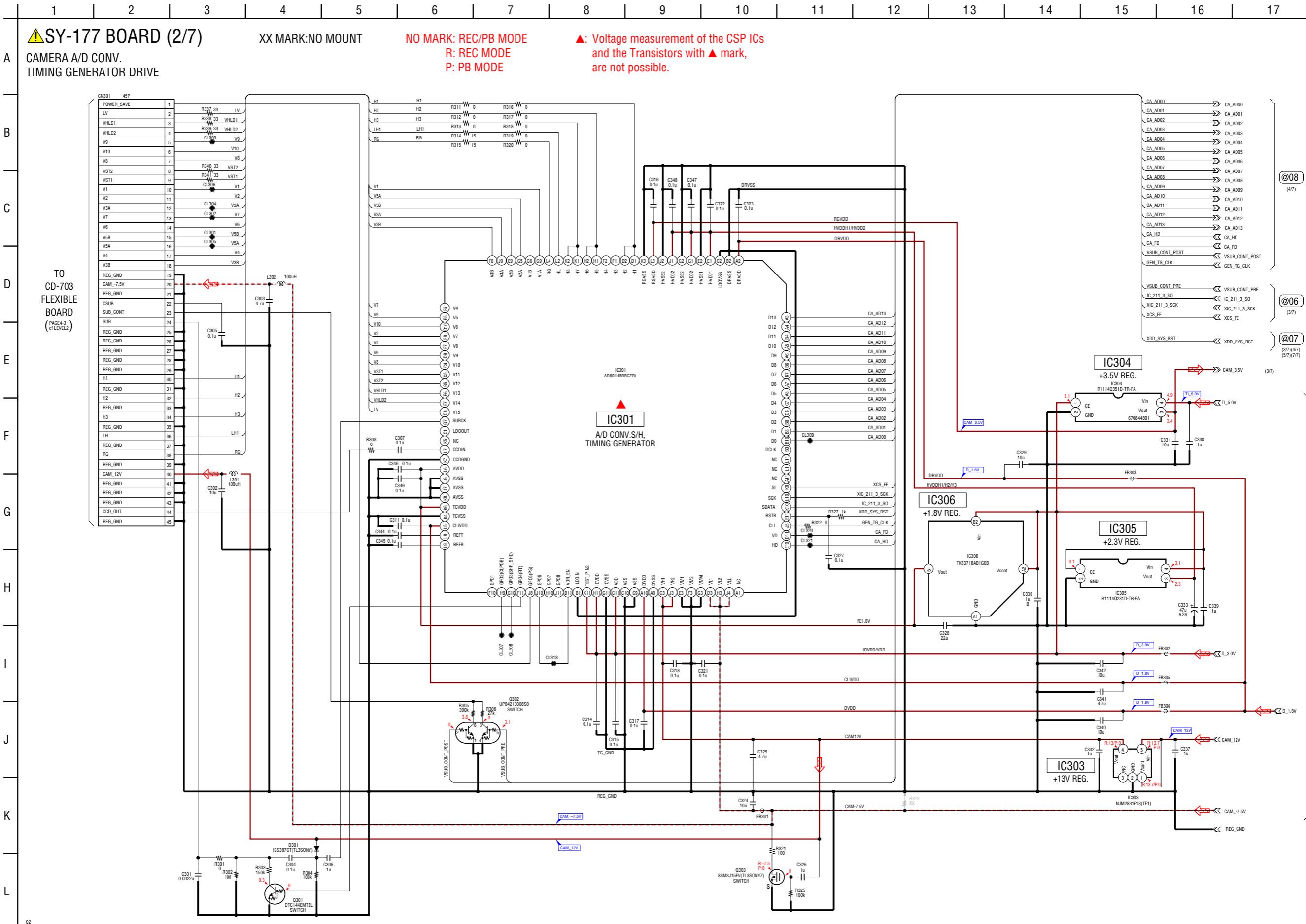
The components identified by mark ▲ or dotted line with mark ▲ are critical for safety.
Replace only with part number specified.

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

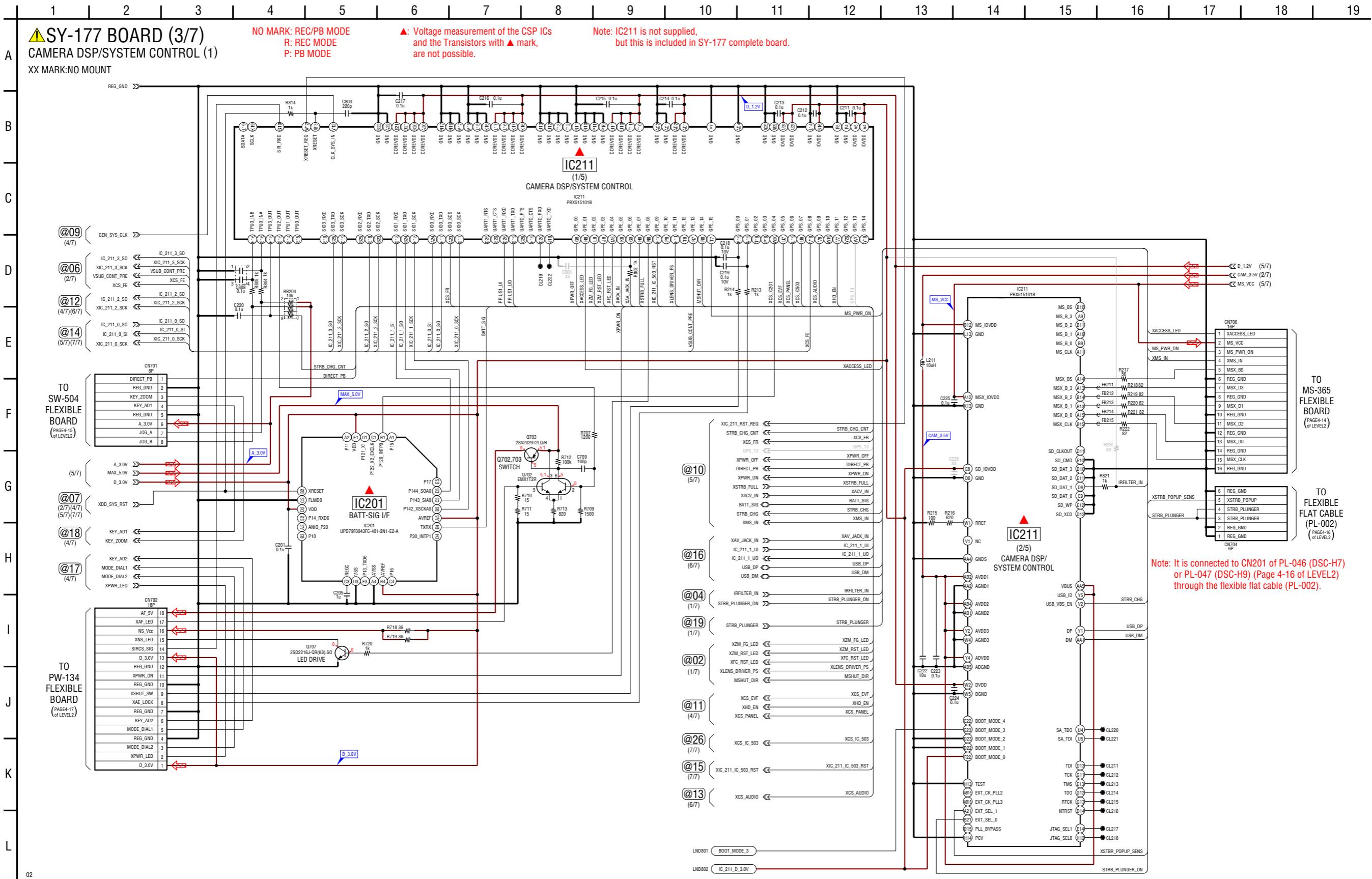
• Refer to page 4-2 for mark ▲.



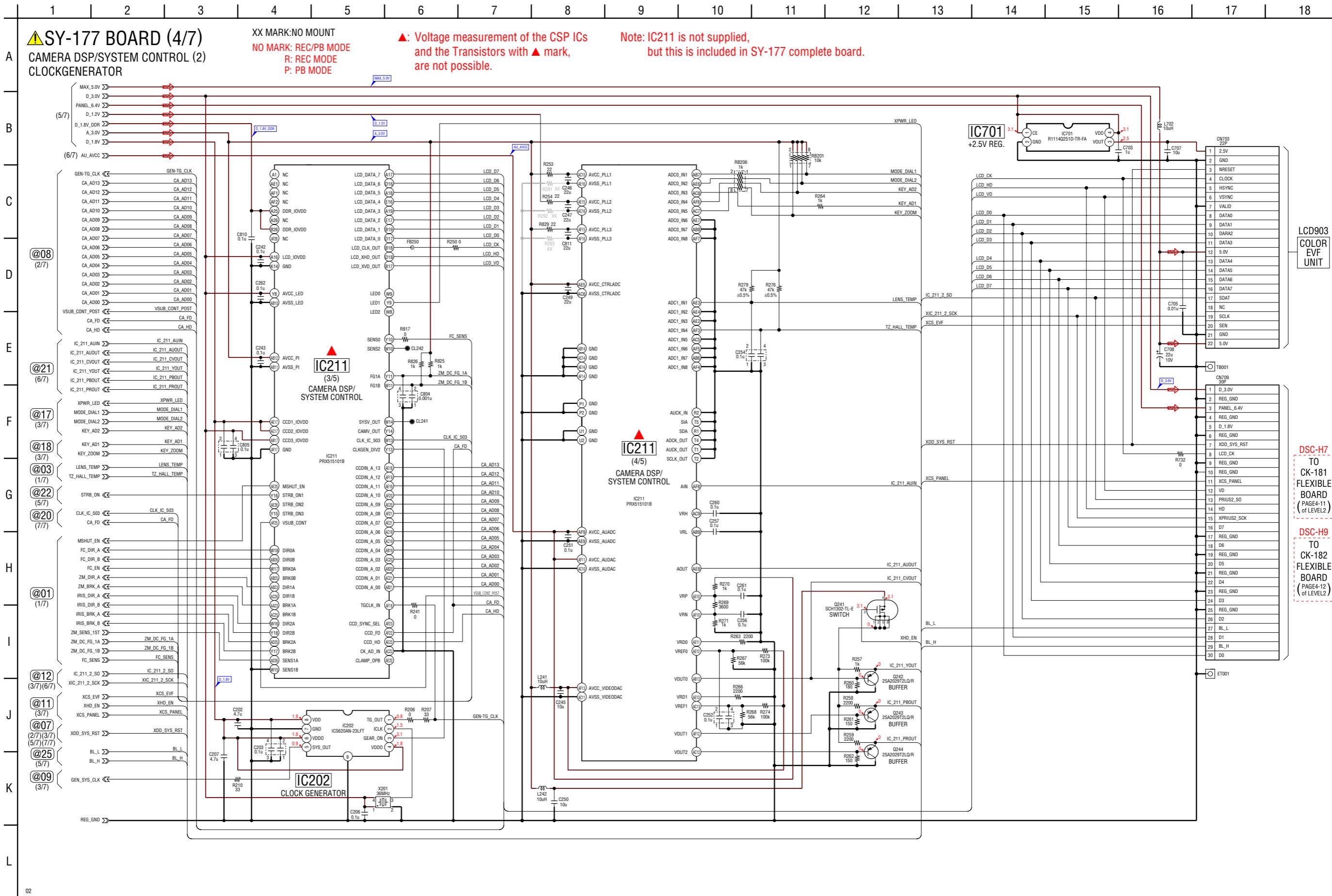
• Refer to page 4-2 for mark ▲.



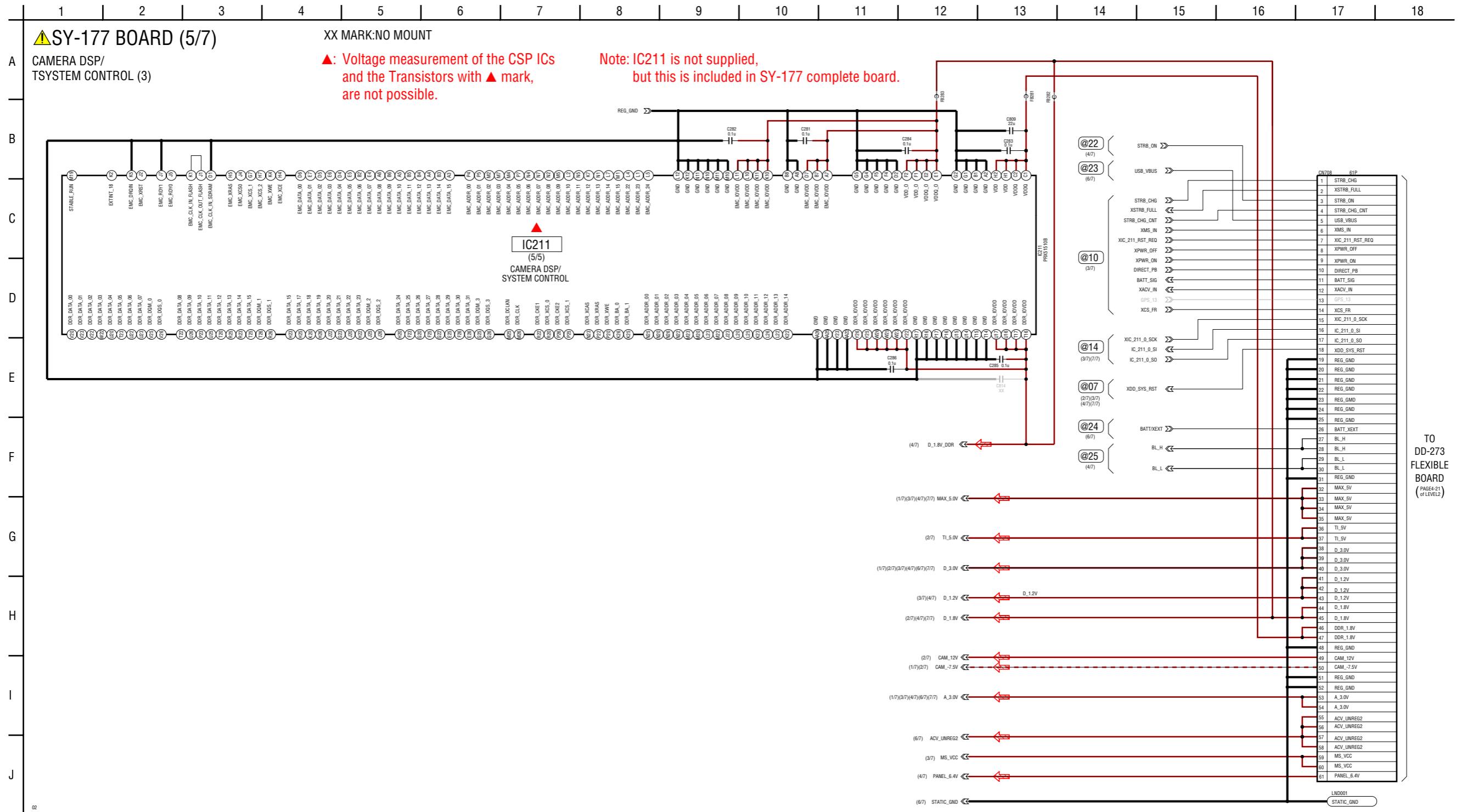
• Refer to page 4-2 for mark △.



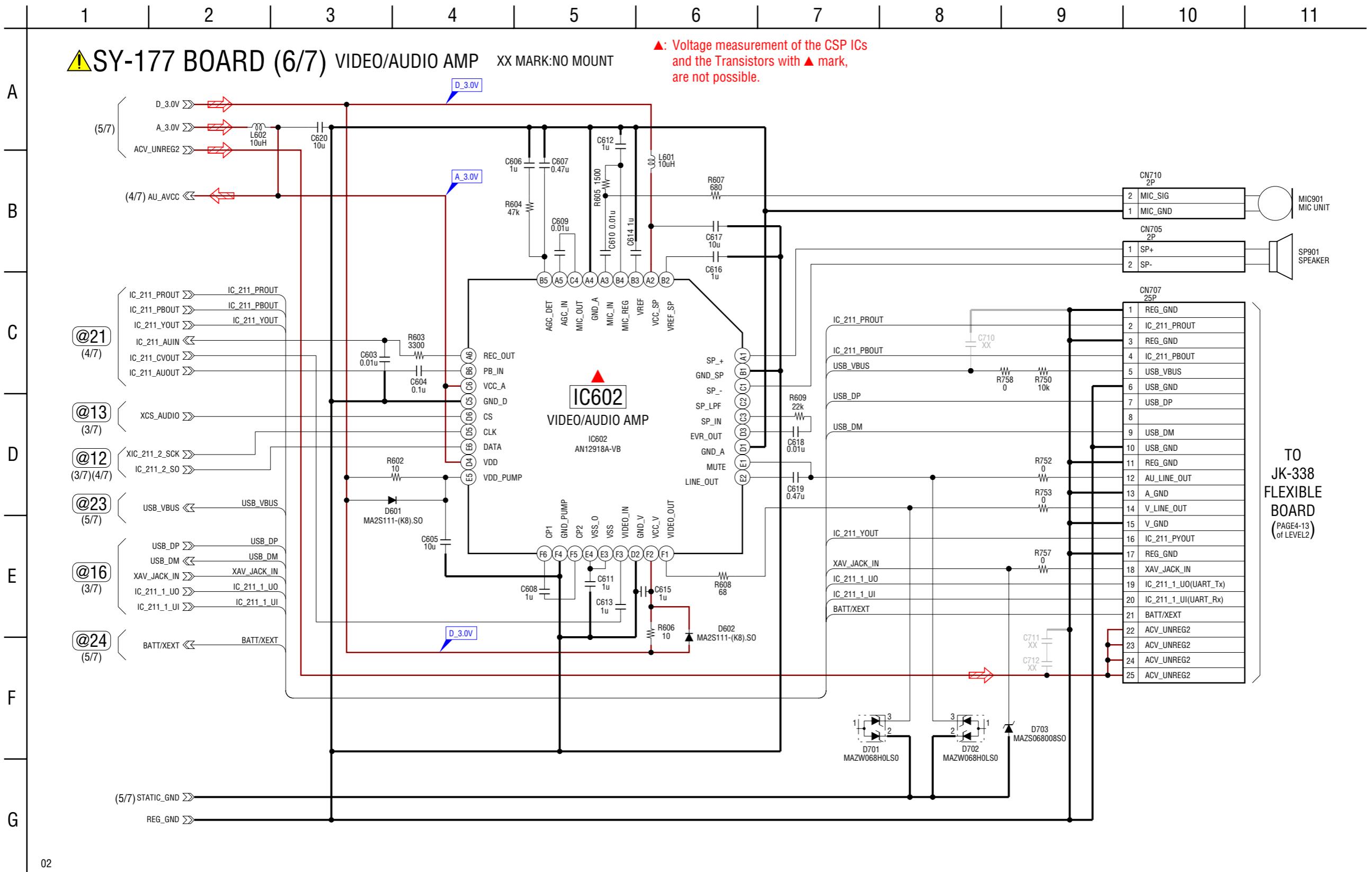
• Refer to page 4-2 for mark ▲.



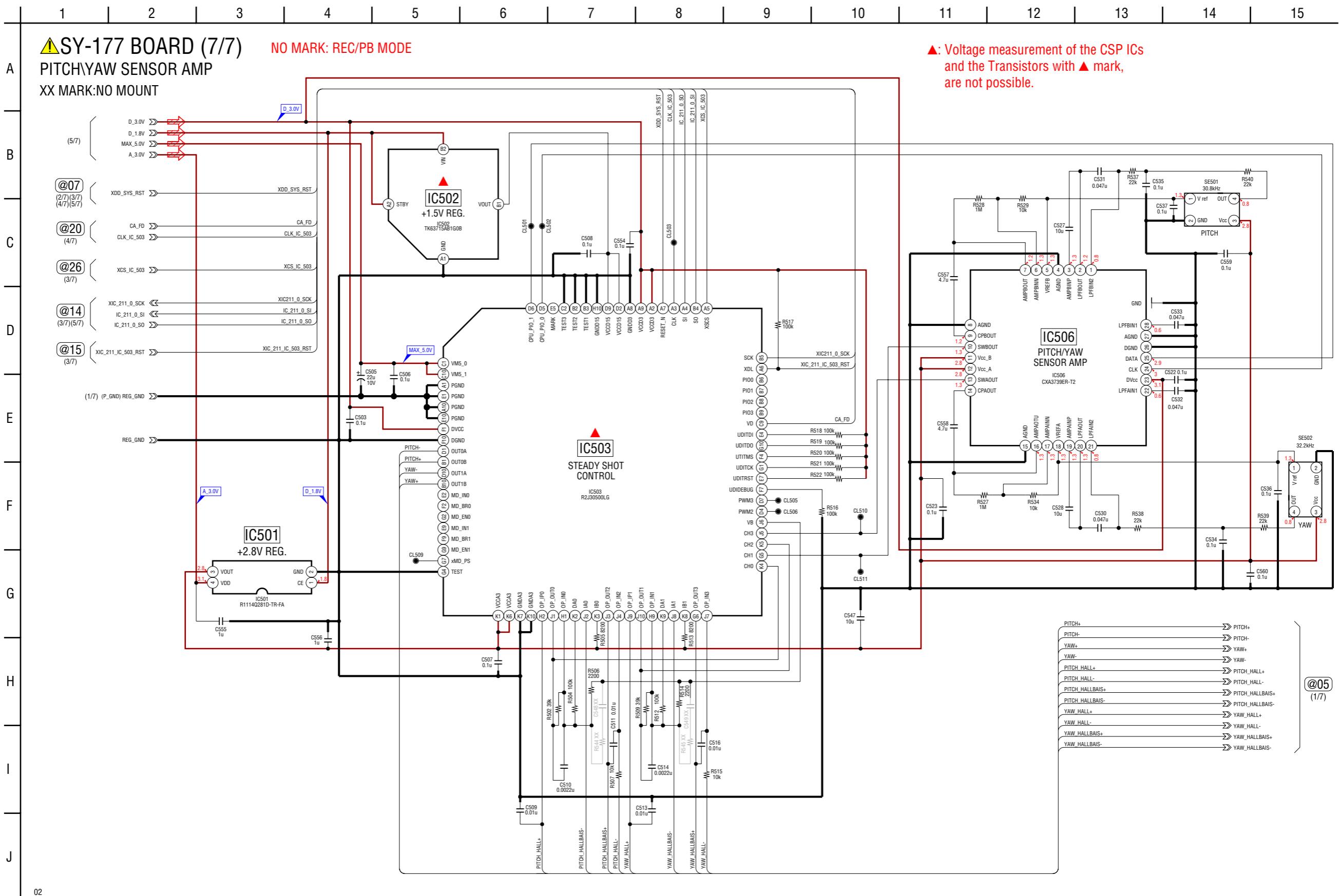
• Refer to page 4-2 for mark ▲.



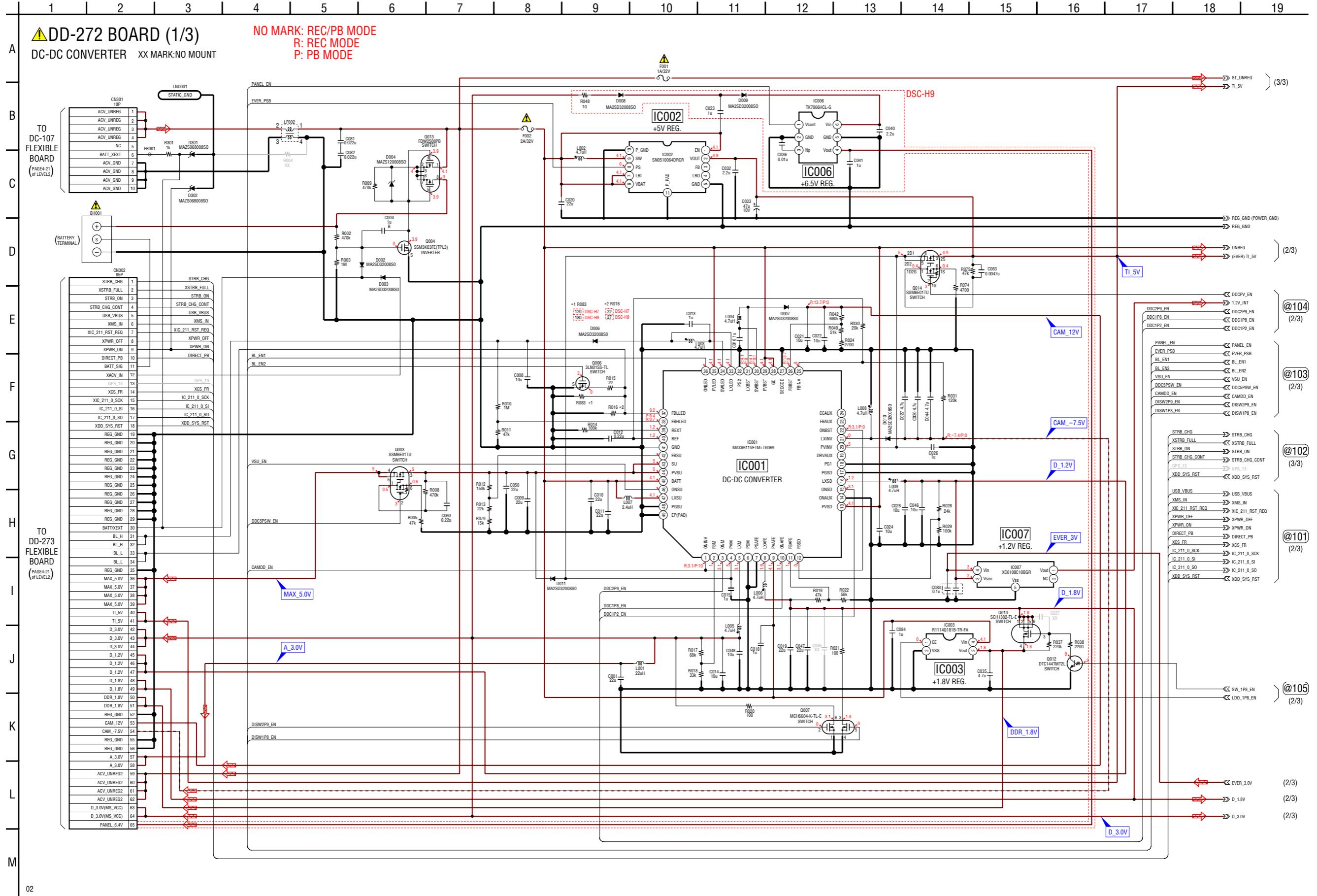
• Refer to page 4-2 for mark ▲.



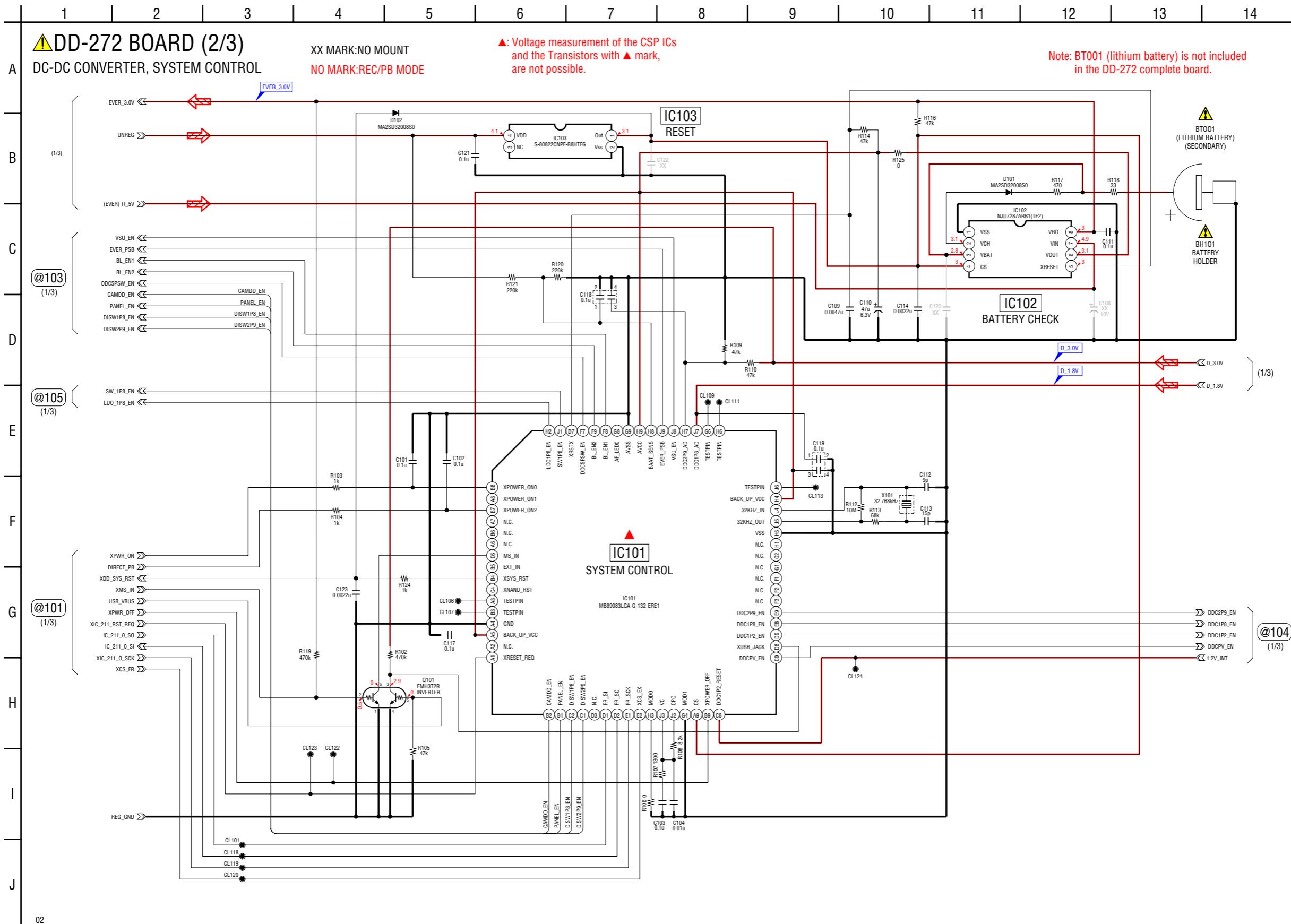
• Refer to page 4-2 for mark ▲.



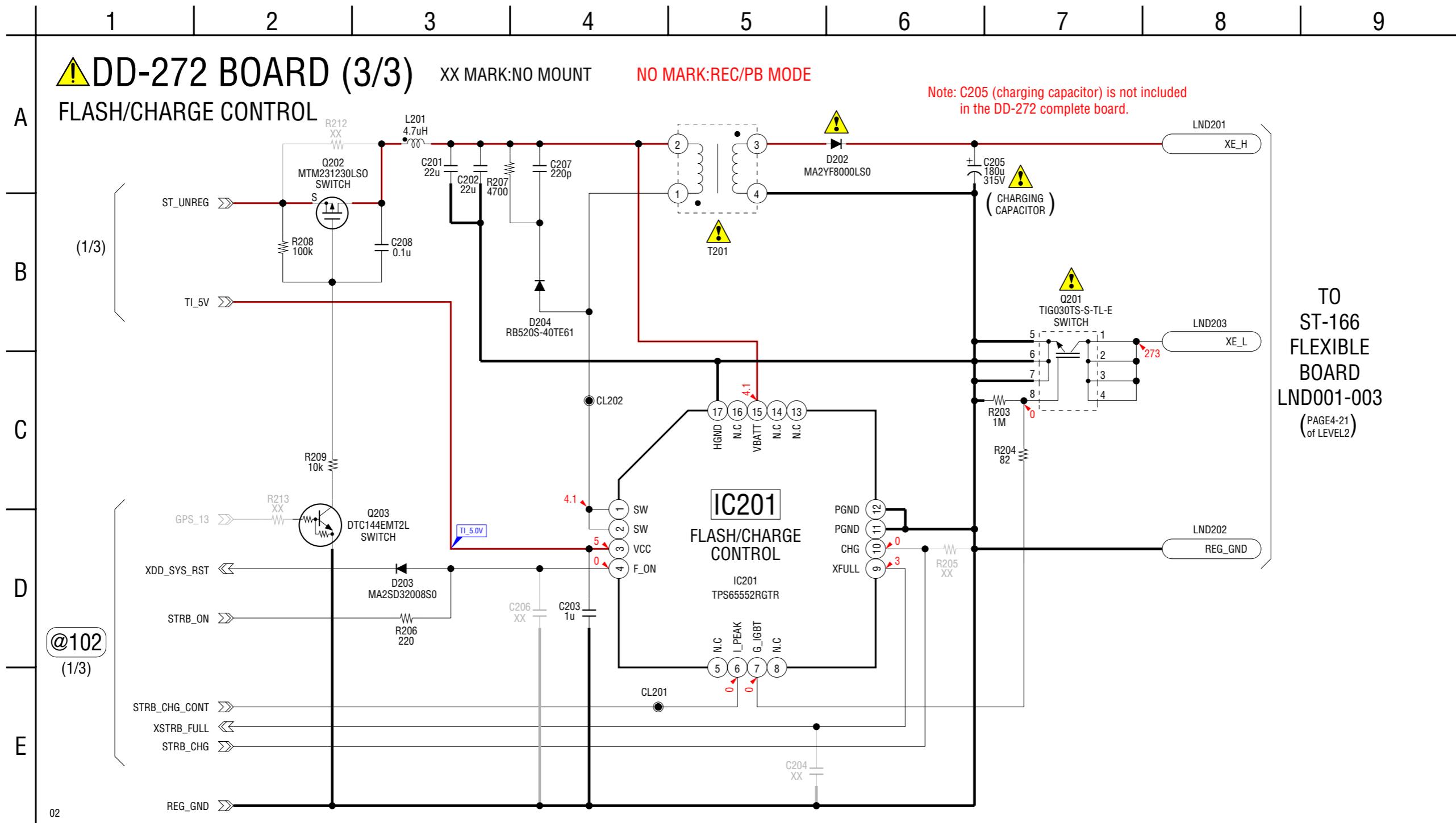
• Refer to page 4-2 for mark \triangle .



• Refer to page 4-2 for mark ▲.



• Refer to page 4-2 for mark △.



4-3. PRINTED WIRING BOARDS

Link

• SY-177 BOARD

• DD-272 BOARD

• COMMON NOTE FOR PRINTED WIRING BOARDS

• MOUNTED PARTS LOCATION

4-3. PRINTED WIRING BOARDS

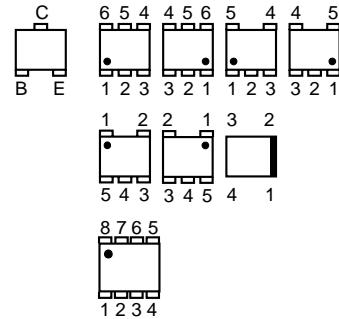
4-3. PRINTED WIRING BOARDS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS

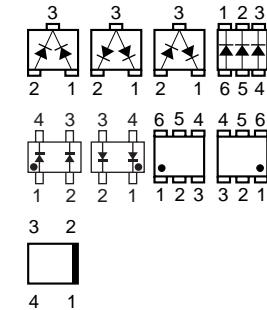
-  : Uses unleaded solder.
-  : Circuit board
-  : Flexible board
- Pattern from the side which enables seeing.
 : pattern of the rear side
 (The other layers' patterns are not indicated)
- Through hole is omitted.
- There are a few cases that the part printed on diagram isn't mounted in this model.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

- Chip parts.

Transistor



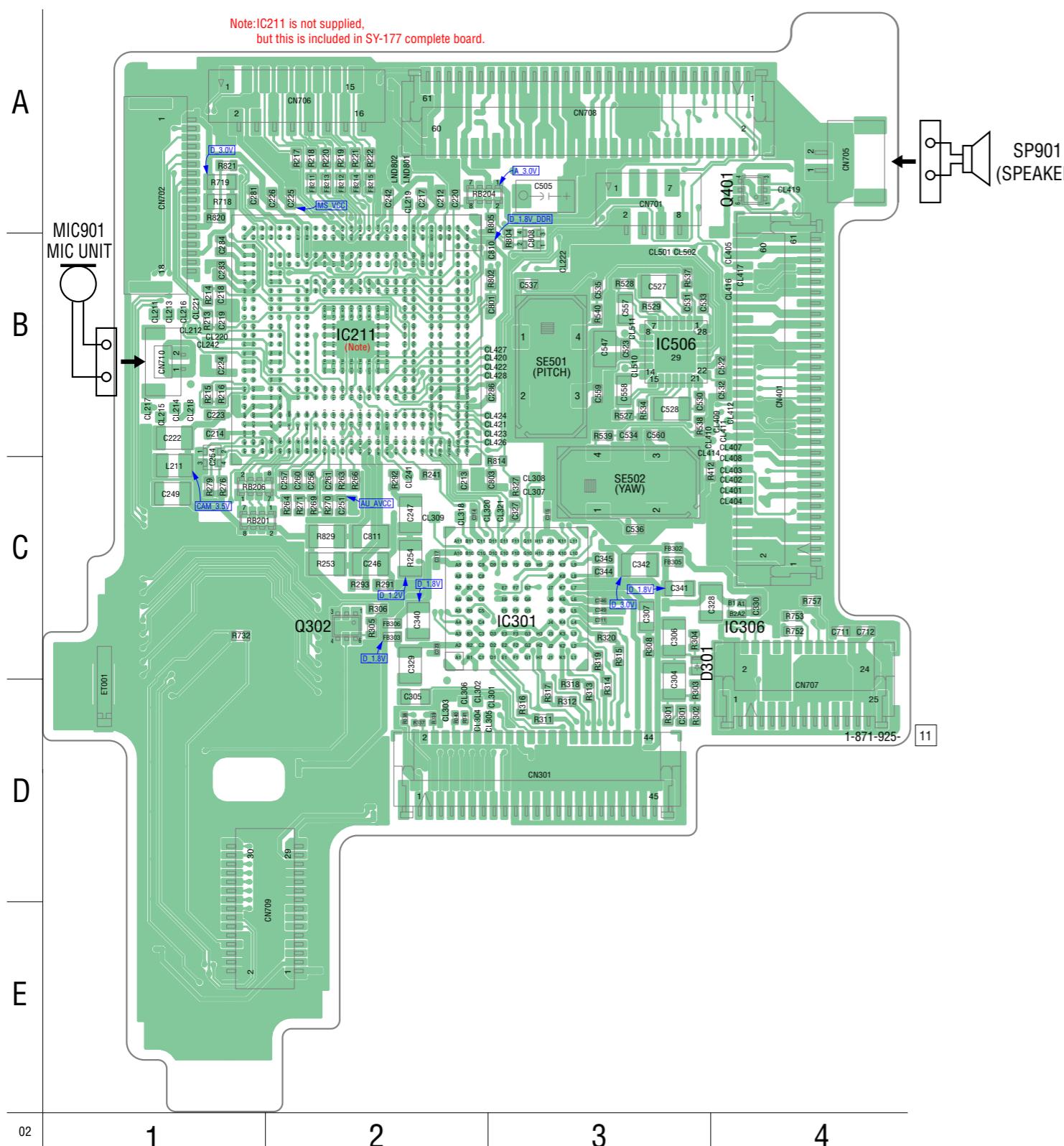
Diode



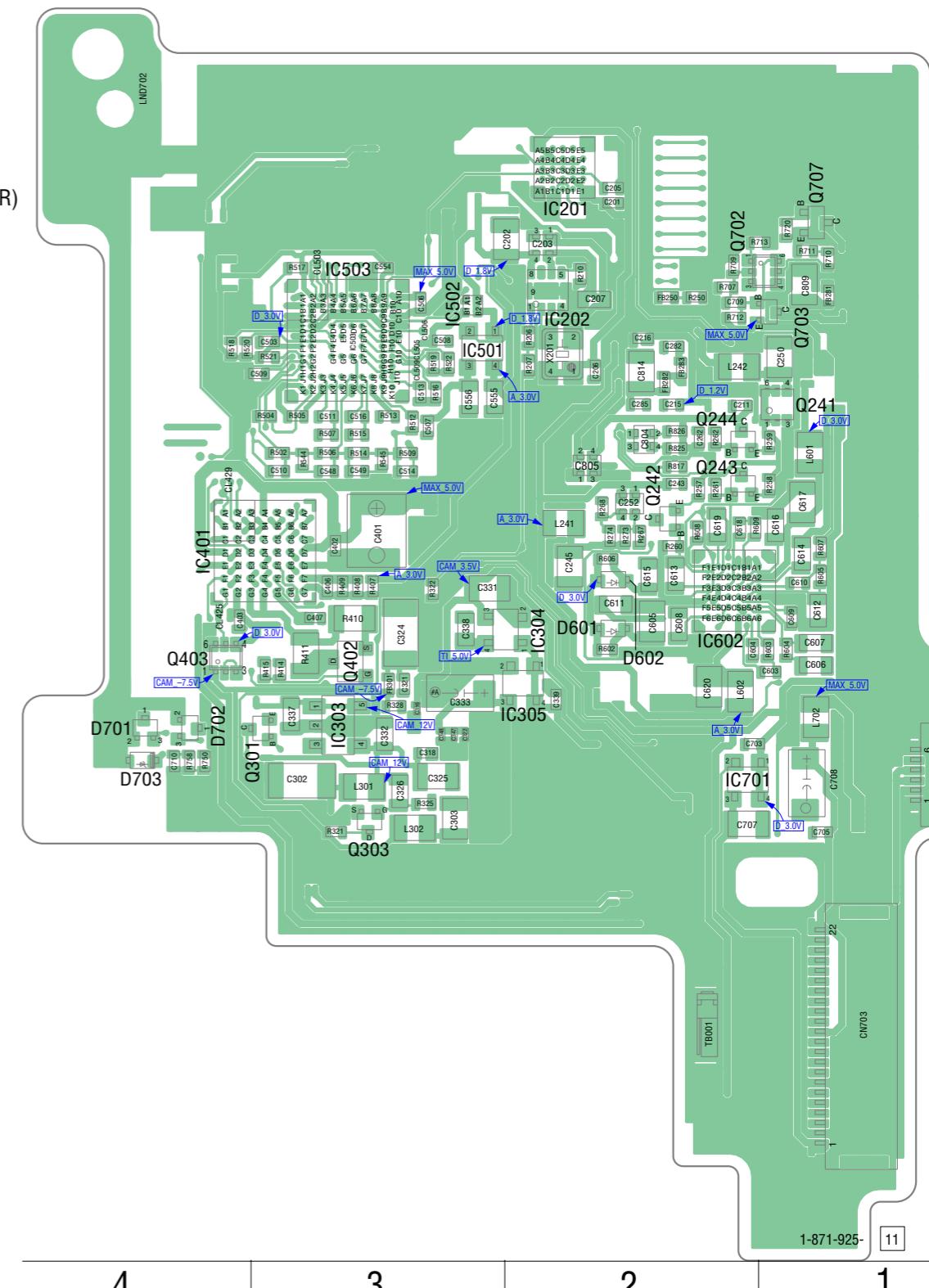
SY-177 (8 layers)

 : Uses unleaded solder.

SY-177 BOARD (SIDE A)



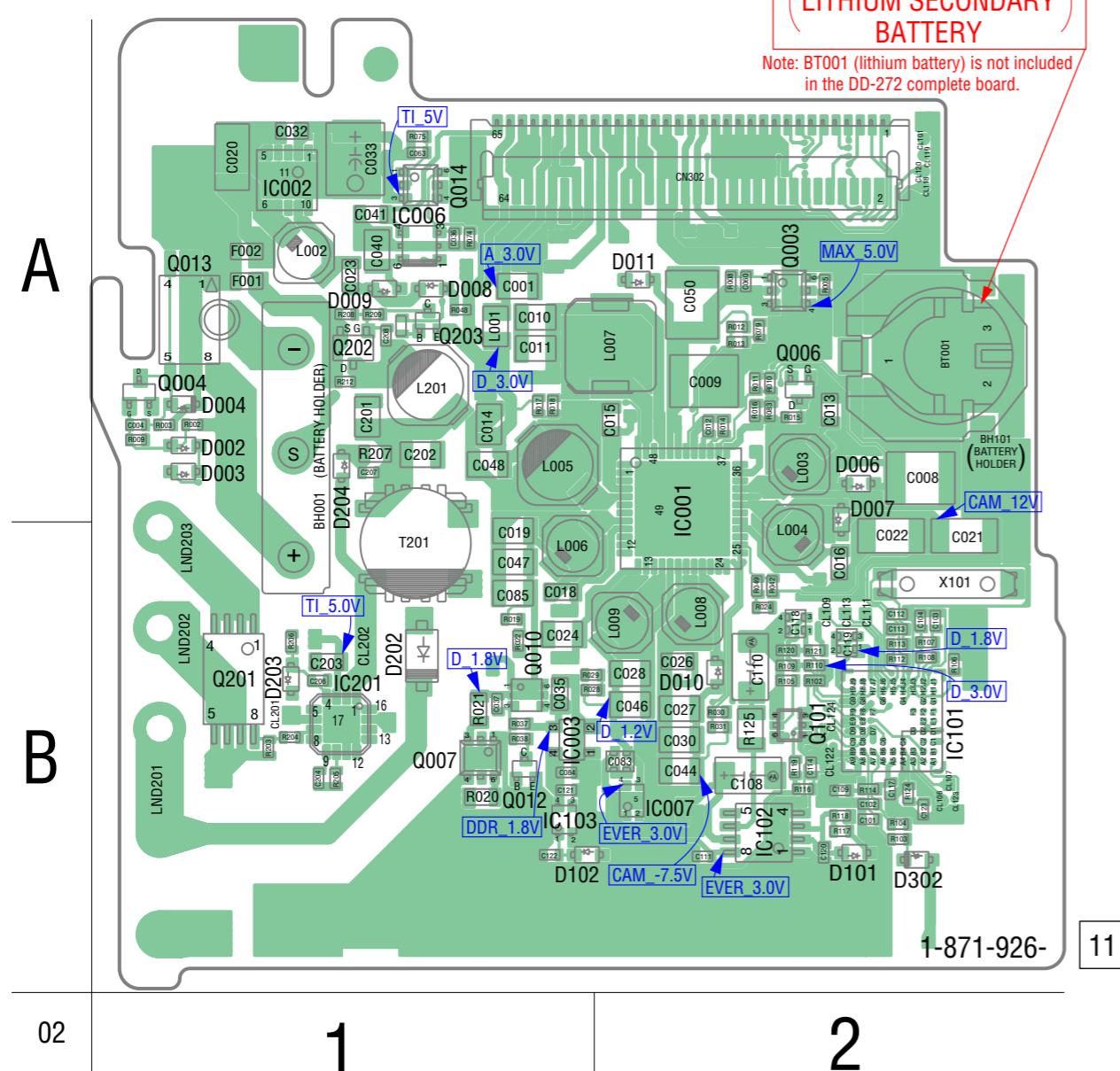
SY-177 BOARD (SIDE B)



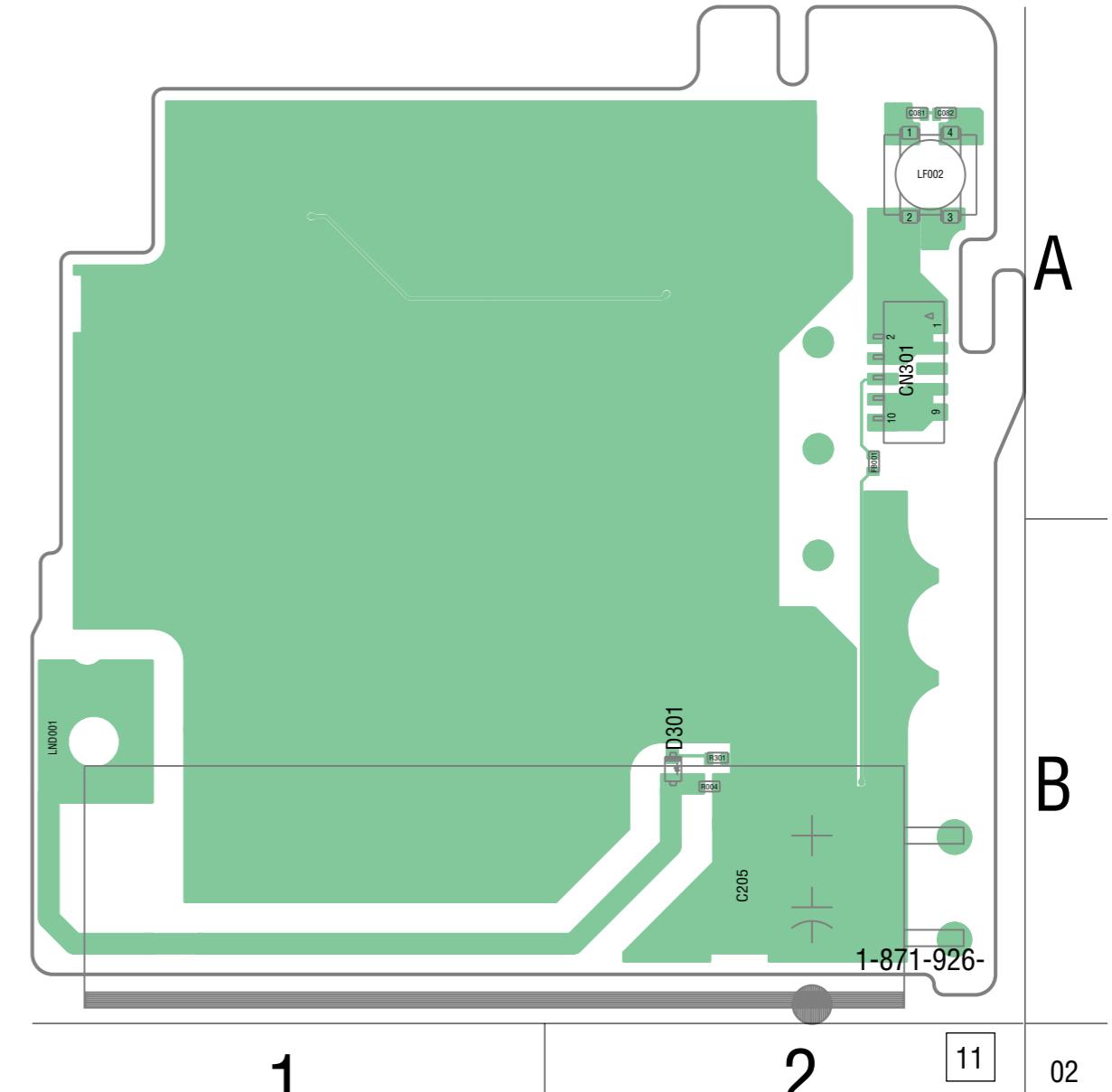
DD-272 (6 layers)

 : Uses unleaded solder.

DD-272 BOARD (SIDE A)



DD-272 BOARD (SIDE B)



Note: Replace the battery holder (BH101) together when replacing the lithium battery (BT001) on the DD-272 board. (The battery holder removed once cannot be used again.)
When mounting these parts, mount new battery holder first and attach new lithium battery next.

Note: DD-272基板のリチウム電池(BT001)を交換する場合はバッテリホルダ(BH101)も同時に新品に交換して下さい。(一度使用したバッテリホルダは再使用できません。)
部品取付けの際は、先にバッテリホルダを取付けてからリチウム電池を装着して下さい。

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

注意
電池の交換は、正しく行わないで破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

4-3. PRINTED WIRING BOARDS

4-4. MOUNTED PARTS LOCATION

no mark : side A
 * mark : side B

DD-272 BOARD

BH001	A-1	F001	A-1
BH101	A-2	F002	A-1
BT001	A-2		
		* FB001	B-1
C001	A-1	IC001	A-2
C004	A-1	IC002	A-1
C008	A-2	IC003	B-1
C009	A-2	IC006	A-1
C010	A-1	IC007	B-2
C011	A-1	IC101	B-2
C012	A-2	IC102	B-2
C013	A-2	IC103	B-1
C014	A-1	IC201	B-1
C015	A-2		
C016	B-2	L001	A-1
C018	B-1	L002	A-1
C019	B-1	L003	A-2
C020	A-1	L004	B-2
C022	B-2	L005	A-1
C023	A-1	L006	B-1
C024	B-1	L007	A-2
C026	B-2	L008	B-2
C027	B-2	L009	B-2
C028	B-2	L201	A-1
C030	B-2		
C032	A-1	* LF002	B-1
C033	A-1		
C035	B-1	Q003	A-2
C036	A-1	Q004	A-1
C040	A-1	Q006	A-2
C041	A-1	Q007	B-1
C044	B-2	Q010	B-1
C046	B-2	Q012	B-1
C047	B-1	Q013	A-1
C048	A-1	Q014	A-1
C050	A-2	Q101	B-2
C060	A-2	Q201	B-1
C063	A-1	Q202	A-1
* C081	B-1	Q203	A-1
* C082	B-1		
C083	B-2	R002	A-1
C084	B-1	R003	A-1
C101	B-2	R005	A-2
C102	B-2	R008	A-2
C103	B-2	R009	A-1
C104	B-2	R010	A-2
C109	B-2	R011	A-2
C110	B-2	R012	A-2
C111	B-2	R013	A-2
C112	B-2	R014	A-2
C113	B-2	R015	A-2
C114	B-2	R016	A-2
C117	B-2	R017	A-1
C118	B-2	R018	A-1
C119	B-2	R019	B-1
C121	B-1	R020	B-1
C123	B-2	R021	B-1
C201	A-1	R022	B-1
C202	A-1	R024	B-2
C203	B-1	R028	B-1
* C205	A-1	R029	B-1
C207	A-1	R030	B-2
C208	A-1	R031	B-2
		R037	B-1
* CN301	B-1	R038	B-1
CN302	A-2	R042	B-2
		R048	A-1
D002	A-1	R049	B-2
D003	A-1	R074	A-1
D004	A-1	R075	A-1
D006	A-2	R079	A-2
D007	A-2	R083	A-2
D008	A-1	R102	B-2
D009	A-1	R103	B-2
D010	B-2	R104	B-2
D011	A-2	R105	B-2
D101	B-2	R106	B-2
D102	B-1	R107	B-2
D202	B-1	R108	B-2
D203	B-1	R109	B-2
D204	A-1	R110	B-2
* D301	A-1	R112	B-2
D302	B-2	R113	B-2

SY-177 BOARD

DSC-N2_L3

4-3. PRINTED WIRING BOARDS

SY-177 BOARD

no mark : side A
* mark : side B

* R273	C-2	R805	A-3
* R274	C-2	R814	C-3
R276	C-1	* R817	B-2
R279	C-1	R821	A-1
R301	D-3	* R825	B-2
R302	D-3	* R826	B-2
R303	D-3	R829	C-2
R304	C-3		
R305	C-2	RB-201	C-1
R306	C-2	RB-204	A-2
R308	C-3	RB-206	C-1
R311	D-3		
R312	D-3	SE501	B-3
R313	D-3	SE502	C-3
R314	D-3		
R315	C-3	* TB001	E-2
R316	D-3		
R317	D-3	* X201	B-2
R318	D-3		
R319	C-3		
R320	C-3		
* R321	D-3		
* R322	C-3		
* R325	D-3		
R327	C-3		
R337	D-2		
R338	D-2		
R339	D-2		
R340	D-2		
R341	D-2		
* R407	C-3		
* R408	C-3		
* R410	C-3		
* R411	C-3		
R412	C-4		
* R414	C-3		
* R415	C-3		
* R502	B-3		
* R504	B-3		
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R527	B-3		
R528	B-3		
R529	B-3		
R534	B-3		
R537	B-3		
R538	B-3		
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R540	B-3		
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* R712	B-2		
* R713	A-1		
R718	A-1		
R719	A-1		
* R720	A-1		
R732	C-1		
* R750	C-4		
R752	C-4		
R753	C-4		
R757	C-4		
* R758	C-4		
R802	B-3		
R804	B-3		

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..., μ PC..., μ PC...,
uPD..., μ PD...
- Abbreviation
AR : Argentine model
AUS : Australian model
BR : Brazilian model
CH : Chinese model
CND : Canadian model
HK : Hong Kong model
J : Japanese model
JE : Tourist model
KR : Korea model

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.

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description				
▲	A-1251-444-A	DD-272 BOARD, COMPLETE (H7)	C103	1-125-777-11	CERAMIC CHIP 0.1UF 10% 10V				
▲	A-1251-454-A	DD-272 BOARD, COMPLETE (H9)	C104	1-100-567-81	CERAMIC CHIP 0.01UF 10% 25V				

(BT001 (lithium battery) and C205 are not included in DD-272 complete board.)			C109	1-100-581-81	CERAMIC CHIP 047uF 10% 50V				
			C110	1-100-539-91	TANTAL. CHIP 47uF 20% 6.3V				
< BATTERY TERMINAL BOARD >									
▲ BH001	1-780-061-21	BATTERY TERMINAL BOARD	C111	1-125-777-11	CERAMIC CHIP 0.1UF 10% 10V				
< BATTERY HOLDER >			C112	1-164-849-11	CERAMIC CHIP 9PF 0.5PF 50V				
▲ BH101	1-756-615-31	HOLDER, BATTERY (Note)	C113	1-164-854-11	CERAMIC CHIP 15PF 5% 50V				
< BATTERY >			C114	1-164-939-11	CERAMIC CHIP 022UF 10% 50V				
▲ BT001	1-756-134-12	BATTERY, STRAGE, LITHIUM ION (Note)	C117	1-125-777-11	CERAMIC CHIP 0.1UF 10% 10V				
< CAPACITOR >									
C001	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V	C118	1-100-252-11	CERAMIC CHIP 0.1UF 10% 6.3V				
C004	1-112-717-91	CERAMIC CHIP 1uF 10% 6.3V	C119	1-100-252-11	CERAMIC CHIP 0.1UF 10% 6.3V				
C008	1-135-960-91	CERAMIC CHIP 10uF 10% 25V	C121	1-125-777-11	CERAMIC CHIP 0.1UF 10% 10V				
C009	1-100-055-21	CERAMIC CHIP 22uF 20% 16V	C123	1-164-939-11	CERAMIC CHIP 022UF 10% 50V				
C010	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V	C201	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V				
C011	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V	C202	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V				
C012	1-165-887-91	CERAMIC CHIP 0.22uF 10% 6.3V	C203	1-165-908-11	CERAMIC CHIP 1uF 10% 10V				
C013	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	▲ C205	1-114-341-11	ALUMINUM ELECT 180MF 315V				
C014	1-165-989-11	CERAMIC CHIP 10uF 10% 6.3V	C207	1-164-933-11	CERAMIC CHIP 220PF 10% 50V				
C015	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	C208	1-125-777-11	CERAMIC CHIP 0.1UF 10% 10V				
< CONNECTOR >									
			CN301	1-779-329-51	CONNECTOR, FFC/FPC 10P				
*	CN302	1-820-967-11	CONNECTOR, FPC (ZIF) 65P	< DIODE >					
			D002	6-500-813-01	DIODE MA2SD32008S0				
			D003	6-500-813-01	DIODE MA2SD32008S0				
			D004	8-719-056-59	DIODE MAZS120008S0				
			D006	6-500-813-01	DIODE MA2SD32008S0				
			D007	6-500-813-01	DIODE MA2SD32008S0				
			D008	6-500-813-01	DIODE MA2SD32008S0 (H9)				
			D009	6-500-813-01	DIODE MA2SD32008S0 (H9)				
			D010	6-500-813-01	DIODE MA2SD32008S0				
			D011	6-500-813-01	DIODE MA2SD32008S0				
			D101	6-500-813-01	DIODE MA2SD32008S0				
			D102	6-500-813-01	DIODE MA2SD32008S0				
*	D202	6-501-433-01	DIODE MA2YF8000LS0	CAUTION					
	D203	6-500-813-01	DIODE MA2SD32008S0	Danger of explosion if battery is incorrectly replaced.					
	D204	6-500-619-01	DIODE RB520S-40TE61	Replace only with the same or equivalent type.					
	D301	8-719-056-54	DIODE MAZS068008S0	注意					
	D302	8-719-056-54	DIODE MAZS068008S0	電池の交換は、正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。					
				Note: Replace the battery holder (BH101) together when replacing the lithium battery (BT001) on the DD-272 board. (The battery holder removed once cannot be used again.) When mounting these parts, mount new battery holder first and attach new lithium battery next.					
				Note: DD-272 基板のリチウム電池(BT001)を交換する場合はバッテリホルダ(BH101)も同時に新品に交換して下さい。(一度使用したバッテリホルダは再使用できません。) 部品取付けの際は、先にバッテリホルダを取付けてからリチウム電池を装着して下さい。					

• Refer to page 5-1 for mark ▲.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	
< FUSE >							
△F001	1-576-612-21	FUSE (1A/32V)		R015	1-208-643-11	METAL CHIP	22
△F002	1-576-415-21	FUSE (2A/32V)		R016	1-208-643-11	METAL CHIP	22
< FERRITE BEAD >							
FB001	1-469-580-21	FERRITE	0uH	R016	1-220-880-81	METAL CHIP	27
< IC >							
* IC001	6-710-930-01	IC MAX8611VETM+TG069		R017	1-208-931-11	METAL CHIP	68K
* IC002	6-709-726-01	IC SN0510064DRCR		R018	1-208-923-11	METAL CHIP	33K
* IC003	6-710-854-01	IC R1114Q181B-TR-FA		R019	1-208-927-11	METAL CHIP	47K
* IC006	6-710-846-01	IC TK70664HCL-G (H9)		R020	1-216-809-11	METAL CHIP	100
* IC007	6-710-970-01	IC XC6108C10BGR		R021	1-216-809-11	METAL CHIP	100
* IC101	6-807-383-01	IC MB89083LGA-G-132-ERE1		R022	1-208-929-81	METAL CHIP	56K
* IC102	6-710-971-01	IC NJU7287ARB1 (TE2)		R024	1-218-958-11	RES-CHIP	2.7K
* IC103	6-711-152-01	IC S-80822CNPF-B8HTFG		R028	1-208-920-81	METAL CHIP	24K
IC201	6-707-555-01	IC TPS65552RGTR		R029	1-208-935-11	METAL CHIP	100K
< COIL >							
L001	1-400-676-11	INDUCTOR	22uH	R030	1-208-918-81	METAL CHIP	20K
L002	1-457-066-21	INDUCTOR	4.7uH	R031	1-218-978-11	RES-CHIP	120K
L003	1-457-066-21	INDUCTOR	4.7uH	R037	1-218-981-11	RES-CHIP	220K
L004	1-457-066-21	INDUCTOR	4.7uH	R038	1-218-957-11	RES-CHIP	2.2K
L005	1-456-995-22	INDUCTOR	4.7uH	R042	1-208-955-11	METAL CHIP	680K
L006	1-457-066-21	INDUCTOR	4.7uH	R048	1-218-929-11	RES-CHIP	10
* L007	1-457-436-21	COIL, CHOKE	2.4uH	R049	1-208-928-11	METAL CHIP	51K
L008	1-457-066-21	INDUCTOR	4.7uH	R074	1-218-961-11	RES-CHIP	4.7K
L009	1-457-066-21	INDUCTOR	4.7uH	R075	1-218-973-11	RES, CHIP	47K
L201	1-456-995-22	INDUCTOR	4.7uH	R079	1-208-711-11	METAL CHIP	15K
< LINE FILTER >							
* LF002	1-457-217-21	COMMON MODE CHOKE COIL		R083	1-208-661-11	METAL CHIP	120
< TRANSISTOR >							
Q003	6-550-576-01	TRANSISTOR SSM6E01TU		R083	1-208-869-11	METAL CHIP	180
Q004	8-729-047-68	TRANSISTOR SSM3K03FE (TPL3)		R102	1-218-985-11	RES-CHIP	470K
Q006	8-729-055-32	TRANSISTOR 3LN01SS-TL		R103	1-218-953-11	RES-CHIP	1K
Q007	6-550-674-01	TRANSISTOR MCH6604-K-TL-E		R104	1-218-953-11	RES-CHIP	1K
Q010	6-551-674-01	TRANSISTOR SCH1302-TL-E		R105	1-218-973-11	RES-CHIP	47K
Q012	6-550-243-01	TRANSISTOR DTC144TMT2L		R106	1-218-990-81	CONDUCTOR, CHIP	0
Q013	6-550-844-01	TRANSISTOR FDW2508P/GNL		R107	1-208-893-11	METAL CHIP	1.8K
Q014	6-550-576-01	TRANSISTOR SSM6E01TU		R108	1-218-964-11	RES-CHIP	8.2K
Q101	8-729-054-52	TRANSISTOR UP04216008S0		R109	1-208-927-81	METAL CHIP	100K
△*Q201	6-551-686-01	TRANSISTOR TIG030TS-S-TL-E		R110	1-208-927-81	METAL CHIP	100K
Q202	6-551-304-01	TRANSISTOR MTM231230LS0		R112	1-245-604-11	METAL CHIP	10M
Q203	6-550-119-01	TRANSISTOR DTC144EMT2L		R113	1-218-975-11	RES-CHIP	68K
< RESISTOR >							
R002	1-218-985-11	RES-CHIP	470K	R114	1-218-973-11	RES-CHIP	47K
R003	1-218-989-11	RES-CHIP	1M	R116	1-218-973-11	RES-CHIP	47K
R005	1-218-973-11	RES-CHIP	47K	R117	1-218-949-11	RES-CHIP	470
R008	1-218-985-11	RES-CHIP	470K	R118	1-218-935-11	RES-CHIP	33
R009	1-218-985-11	RES-CHIP	470K	R119	1-218-985-11	RES-CHIP	470K
R010	1-218-989-11	METAL CHIP	1M	R120	1-208-943-11	METAL CHIP	220K
R011	1-208-927-11	METAL CHIP	47K	R121	1-208-943-11	METAL CHIP	220K
R012	1-208-939-11	METAL CHIP	150K	R124	1-218-953-11	RES-CHIP	1K
R013	1-208-715-11	METAL CHIP	22K	R125	1-216-295-91	SHORT CHIP	0
R014	1-208-935-11	METAL CHIP	100K	R203	1-218-989-11	RES-CHIP	1M
< TRANSFORMER >							
△ T201	1-445-108-21	TRANSFORMER, D.C-D.C CONVERTER		R204	1-218-940-11	RES-CHIP	82
< VIBRATOR >							
X101	1-781-525-21	VIBRATOR, CRYSTAL (32.768kHz)		R206	1-218-945-11	RES-CHIP	220

• Refer to page 5-1 for mark △.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
△	A-1256-807-A	SY-177 BOARD, COMPLETE (SERVICE) (H7)
△	A-1256-808-A	SY-177 BOARD, COMPLETE (SERVICE) (H9)

(IC211 is not supplied, but this is included in SY-177 complete board.)

< CAPACITOR >

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Value</u>	<u>Tolerance</u>	<u>Voltage</u>
	C317	CERAMIC CHIP	0.1UF	10%	6.3V
	C318	CERAMIC CHIP	0.1UF	20%	16V
	C321	CERAMIC CHIP	0.1UF	10%	10V
	C322	CERAMIC CHIP	0.1UF	10%	6.3V
	C323	CERAMIC CHIP	0.1UF	10%	6.3V
	C324	CERAMIC CHIP	10UF	10%	10V
	C325	CERAMIC CHIP	4.7UF	20%	16V
	C326	CERAMIC CHIP	1UF	10%	16V
	C327	CERAMIC CHIP	0.1UF	10%	10V
	C328	CERAMIC CHIP	22UF	20%	6.3V
	C329	CERAMIC CHIP	10UF	10%	6.3V
	C330	CERAMIC CHIP	1UF	10%	6.3V
	C331	CERAMIC CHIP	10UF	10%	6.3V
	C332	CERAMIC CHIP	1UF	10%	16V
	C333	TANTAL. CHIP	47UF	20%	6.3V
	C337	CCERAMIC CHIP	1UF	10%	16V
	C338	CERAMIC CHIP	1UF	10%	10V
	C339	CERAMIC CHIP	1UF	10%	6.3V
	C340	CERAMIC CHIP	10UF	10%	6.3V
	C341	CERAMIC CHIP	4.7UF	10%	6.3V
	C342	CERAMIC CHIP	10UF	10%	6.3V
	C344	CERAMIC CHIP	0.1UF	10%	10V
	C345	CERAMIC CHIP	0.1UF	10%	10V
	C346	CERAMIC CHIP	0.1UF	10%	6.3V
	C347	CERAMIC CHIP	0.1UF	10%	6.3V
	C348	CERAMIC CHIP	0.1UF	10%	6.3V
	C349	CERAMIC CHIP	0.1UF	10%	6.3V
	C401	TANTAL. CHIP	22UF	20%	10V
	C402	CERAMIC CHIP	0.1UF	10%	10V
	C403	CERAMIC CHIP	0.1UF	10%	10V
	C407	CERAMIC CHIP	0.1UF	10%	10V
	C503	CERAMIC CHIP	0.1UF	10%	10V
	C505	TANTAL. CHIP	22UF	20%	10V
	C506	CERAMIC CHIP	0.1UF	10%	10V
	C507	CERAMIC CHIP	0.1UF	10%	10V
	C508	CERAMIC CHIP	0.1UF	10%	10V
	C509	CERAMIC CHIP	0.01UF	10%	25V
	C510	CERAMIC CHIP	022UF	10%	50V
	C511	CERAMIC CHIP	0.01UF	10%	25V
	C513	CERAMIC CHIP	0.01UF	10%	25V
	C514	CERAMIC CHIP	022UF	10%	50V
	C516	CERAMIC CHIP	0.01UF	10%	25V
	C522	CERAMIC CHIP	0.1UF	10%	10V
	C523	CERAMIC CHIP	0.1UF	10%	10V
	C527	CERAMIC CHIP	10UF	10%	6.3V
	C528	CERAMIC CHIP	10UF	10%	6.3V
	C530	CERAMIC CHIP	0.047UF	10%	10V
	C531	CERAMIC CHIP	0.047UF	10%	10V
	C532	CERAMIC CHIP	0.047UF	10%	10V
	C533	CERAMIC CHIP	0.047UF	10%	10V
	C534	CERAMIC CHIP	0.1UF	10%	10V
	C535	CERAMIC CHIP	0.1UF	10%	10V
	C536	CERAMIC CHIP	0.1UF	10%	10V
	C537	CERAMIC CHIP	0.1UF	10%	10V
	C547	CERAMIC CHIP	10UF	10%	6.3V
	C554	CERAMIC CHIP	0.1UF	10%	10V
	C555	CERAMIC CHIP	1UF	10%	10V
	C556	CERAMIC CHIP	1UF	10%	10V

• Refer to page 5-1 for mark △.

Ref. No.	Part No.	Description				
R732	1-218-990-81	SHORT CHIP	0			
R750	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R752	1-218-990-81	SHORT CHIP	0			
R753	1-218-990-81	SHORT CHIP	0			
R757	1-218-990-81	SHORT CHIP	0			
R758	1-218-990-81	SHORT CHIP	0			
R802	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R804	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R805	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R814	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R817	1-218-990-81	SHORT CHIP	0			
R821	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R825	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R826	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R829	1-216-009-91	RES-CHIP	22	5%	1/10W	

< COMPOSITION CIRCUIT BLOCK >

RB201	1-234-378-11	RES, NETWORK 10K (1005X4)
RB204	1-234-378-11	RES, NETWORK 10K (1005X4)
RB206	1-234-375-21	RES, NETWORK 1K (1005X4)

< SENSOR >

SE501	1-479-022-51	SENSOR, ANGULAR VELOCITY (30.8KHZ) (PITCH)
SE502	1-479-022-61	SENSOR, ANGULAR VELOCITY (32.2KHZ) (YAW)

< TERMINAL >

TB001	1-780-112-11	TERMINAL, CONTACT
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< VIBRATOR >

* X201	1-813-860-21	OSCILLATOR, CRYSTAL (36MHz)
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Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2007.04	Official Release	—	—
1.1	2007.05	Revised-1	<ul style="list-style-type: none">• Correction of SCHEMATIC DIAGRAMS• Correction of PRINTED WIRING BOARDS	Yes