

DSC-S600

SERVICE MANUAL

LEVEL 3

Ver 1.0 2005.12

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
Brazilian Model
Hong Kong Model
Korea Model

Link

• SERVICE NOTE

• SCHEMATIC DIAGRAMS

• REPAIR PARTS LIST

• FRAME SCHEMATIC DIAGRAMS

• PRINTED WIRING BOARDS

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.

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DIGITAL STILL CAMERA

SONY[®]

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 SUPPLÉMENTS 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.)

Note1: When replacing the SY-145 board, erase the data in internal memory of the board before replacement.

Note2: When replacing the SY-145 board or the IC203 on the SY-145 board, execute formatting and initialize the internal memory after replacement.

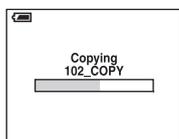
Method for Copying the Data in Internal Memory

Copy

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

	OK	See the following procedure.
✓	Cancel	Cancels the copying.

- ① Insert a "Memory Stick Duo" 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 Duo" after copying, then execute the [Format] command in  (Internal Memory Tool) (page 46).

You cannot select a folder copied on a "Memory Stick Duo".

Even if you copy data, a  (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.

The default settings are marked with ✓.

Format

Formats the internal memory.

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

	OK	See the following procedure.
✓	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.

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4-2. SCHEMATIC DIAGRAMS

Link

<ul style="list-style-type: none">• SY-145 BOARD (1/8) (CAMERA A/D CONV., TIMING GENERATOR)	<ul style="list-style-type: none">• SY-145 BOARD (5/8) (AUDIO AMP, MIC, SP)
<ul style="list-style-type: none">• SY-145 BOARD (2/8) (LENS DRIVE)	<ul style="list-style-type: none">• SY-145 BOARD (6/8) (FLASH DRIVE)
<ul style="list-style-type: none">• SY-145 BOARD (3/8) (CAMERA DSP., SYSTEM CONTROL)	<ul style="list-style-type: none">• SY-145 BOARD (7/8) (LCD PANEL, CONNECTOR)
<ul style="list-style-type: none">• SY-145 BOARD (4/8) (SUPER AND FLASH MEMORY, SDRAM)	<ul style="list-style-type: none">• SY-145 BOARD (8/8) (DC/DC CONVERTER)
<ul style="list-style-type: none">• COMMON NOTE FOR SCHEMATIC DIAGRAMS	<ul style="list-style-type: none">• WAVEFORMS

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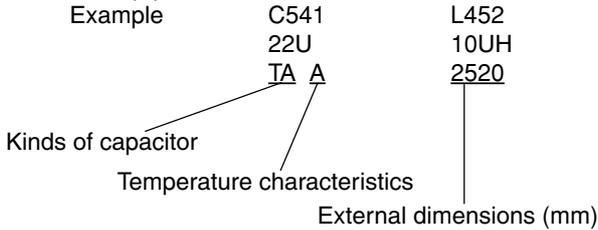
4-2. SCHEMATIC DIAGRAMS

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 μ F unless otherwise noted. pF : μ μ F. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. $k\Omega = 1000 \Omega$, $M\Omega = 1000 k\Omega$.
- 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.
- Circled numbers refer to waveforms.

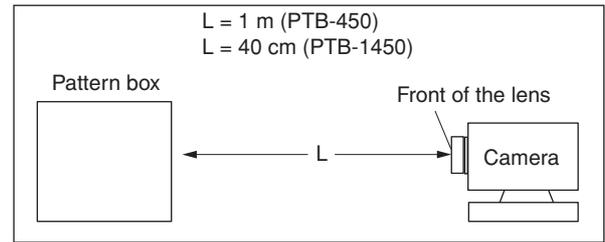
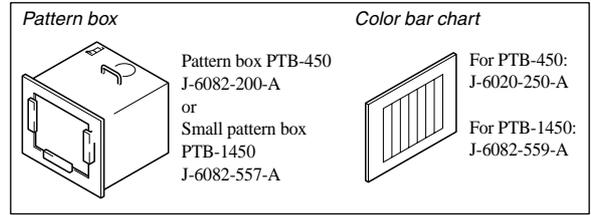
(Measuring conditions voltage and waveform)

- Voltages and waveforms 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 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.

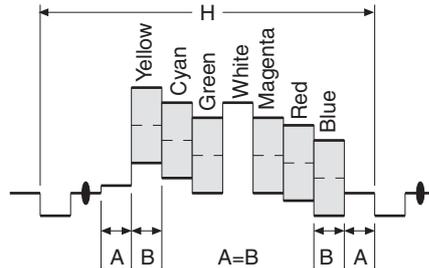


Fig. a (Video output terminal output waveform)

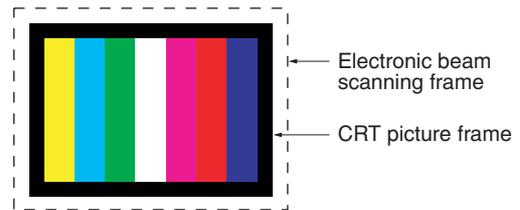


Fig. b (Picture on monitor TV)

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

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

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

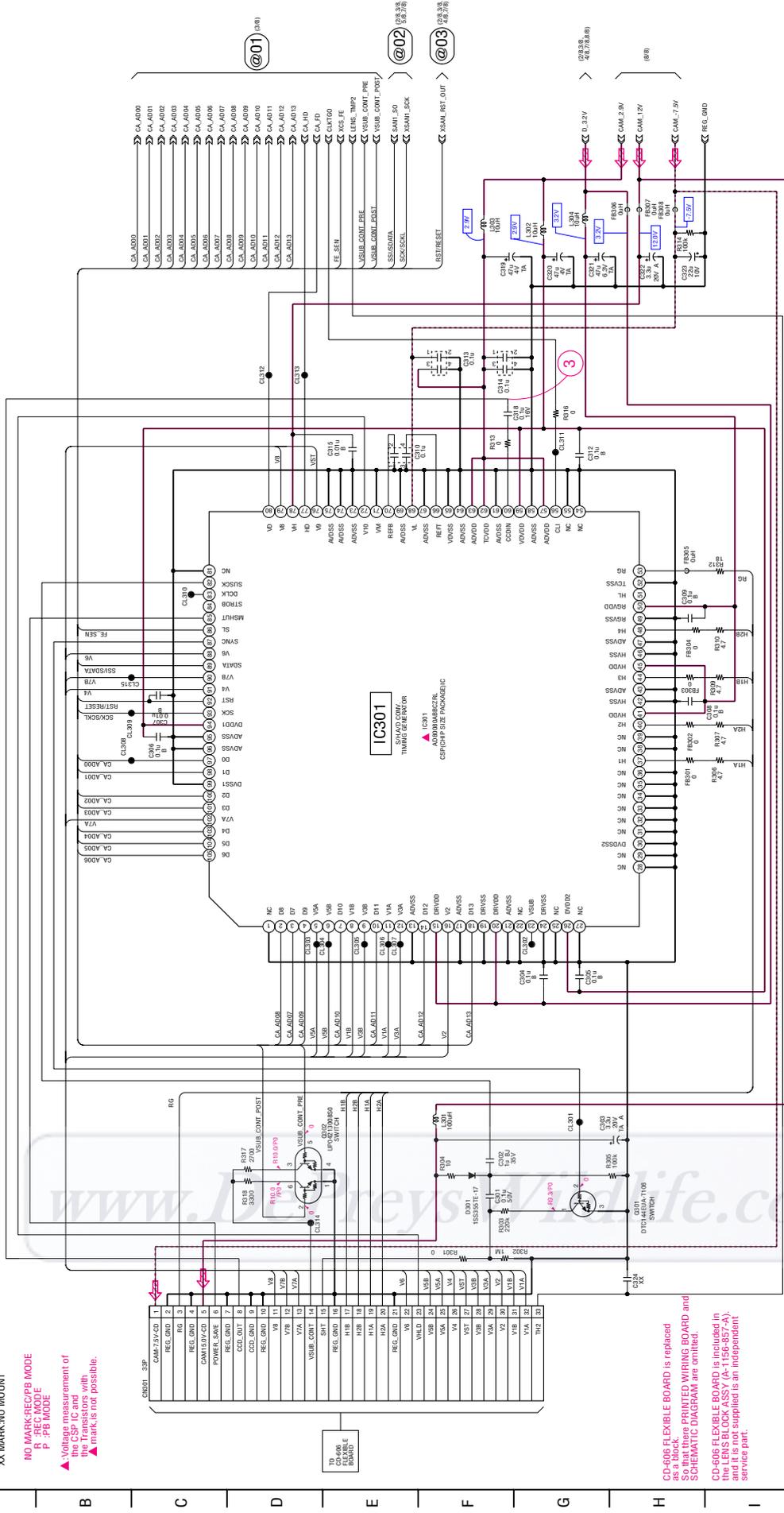
4-2. SCHEMATIC DIAGRAMS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

SY-145 BOARD (1/8)
CAMERA A/D CONV. TIMING GENERATOR
XX MARK/NO MOUNT

NO MARK-RECPPE MODE
P - P MODE
P - P MODE

Voltage measurement of
the Transistors, with
mark is not possible.



16

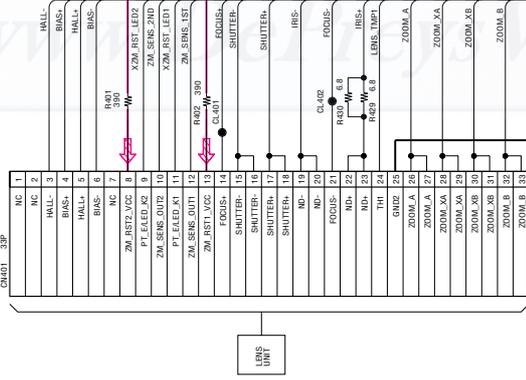
CD-606 FLEXIBLE BOARD is replaced
as a block.
So that there PRINTED WIRING BOARD and
SCHEMATIC DIAGRAM are omitted.
CD-606 FLEXIBLE BOARD is included in
the LENS BLOCK ASSY (A-1156-857-A).
It is not supplied as an independent
service part.

SY-145 BOARD(2/8)

LENS DRIVE
XX MARKING MOUNT

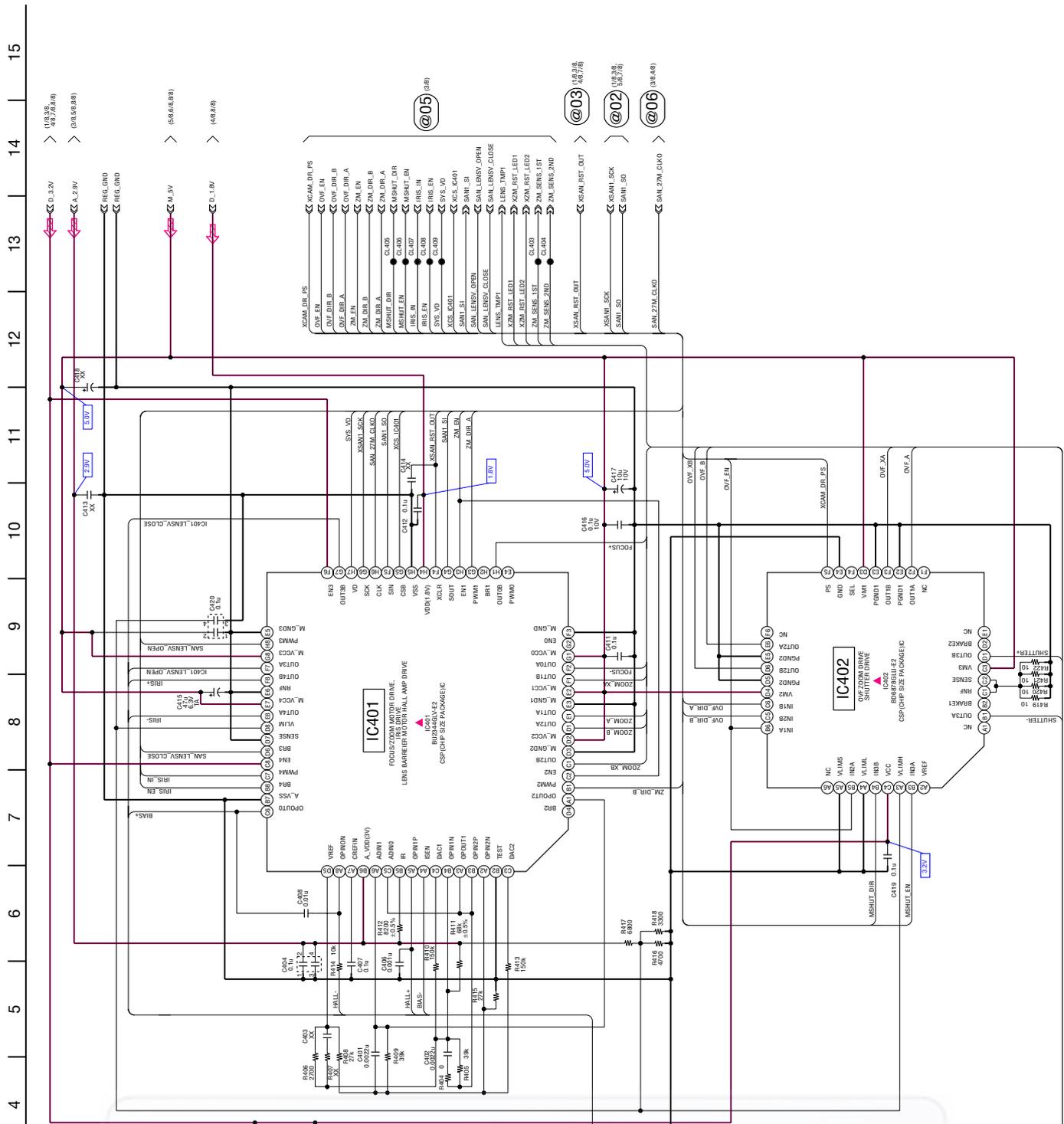
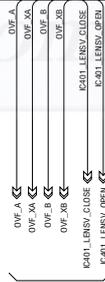
▲ Voltage measurement of the GSP IC and the Transistors with ▲mark is not possible.

NO MARK-RECPFB MODE

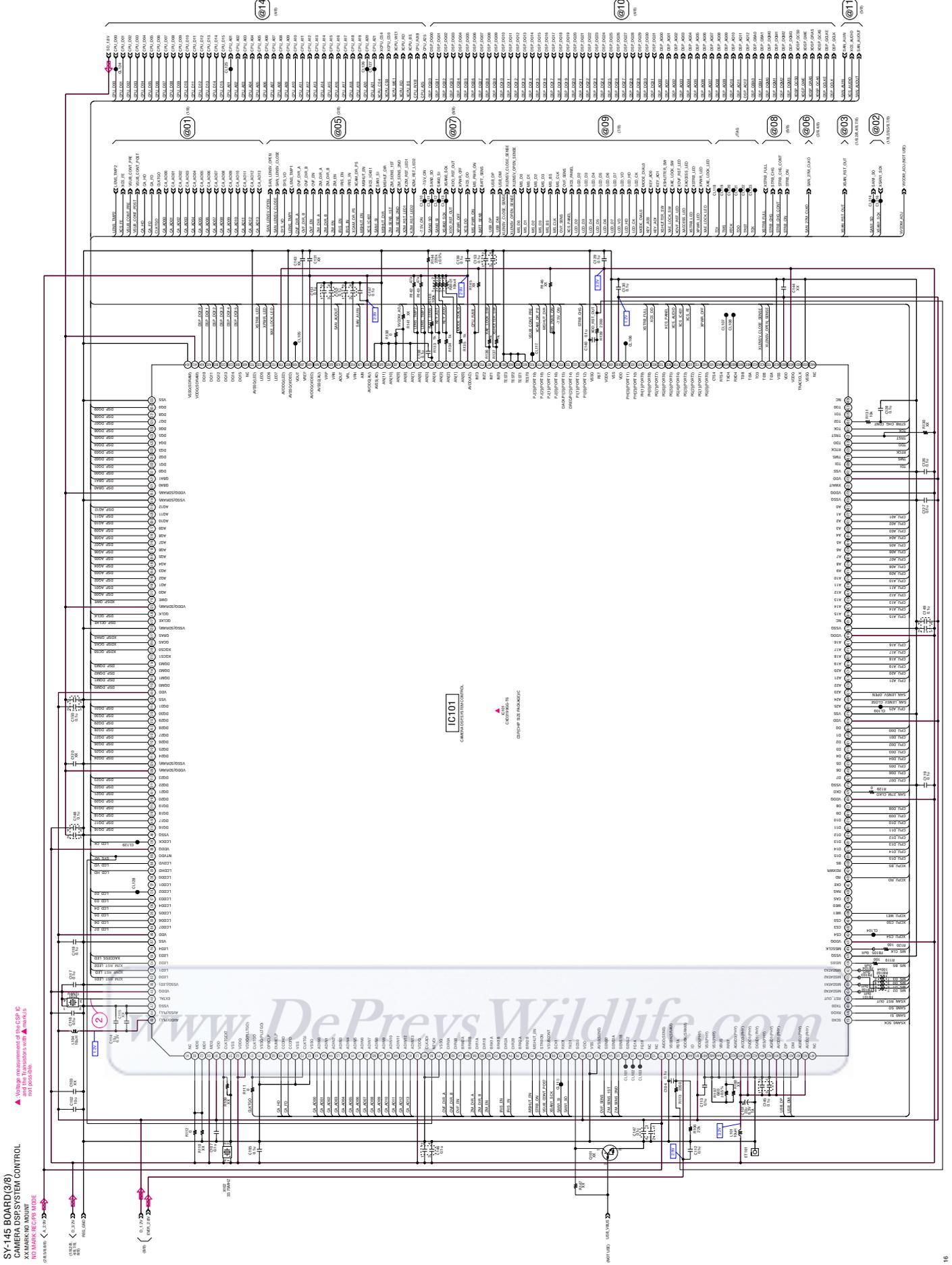


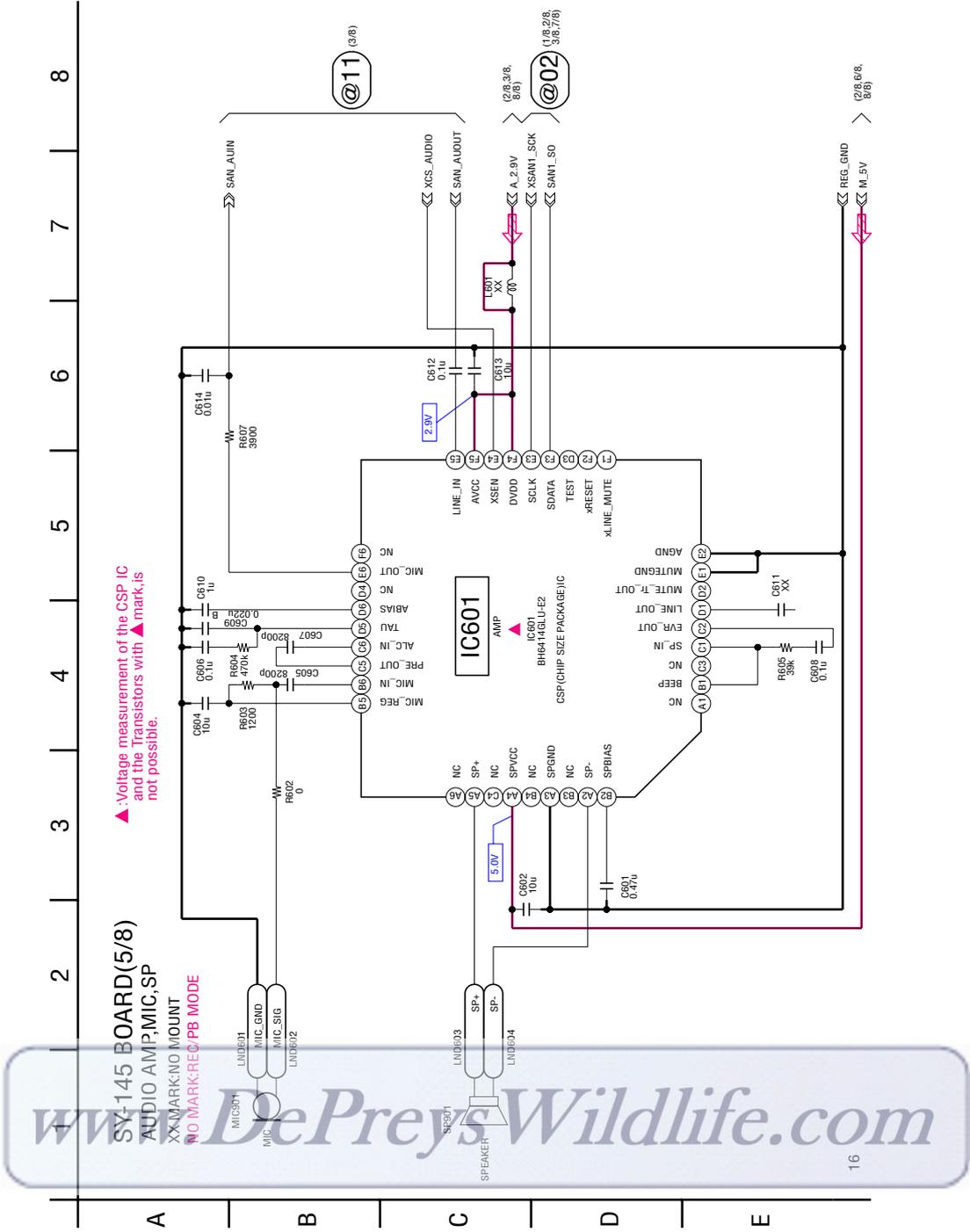
LENS UNIT is replaced as a block. So that there PRINTED WIRING BOARD and SCHEMATIC DIAGRAM are omitted.

LENS UNIT is included in GSPSSV(0-1156-957-A) and fits not supplied is an independent service part.



SY-145 BOARD(3/8)
CAMERA DSP SYSTEM CONTROL
 XX MARKING MOUNT
 NO MARKING REPAIR MADE

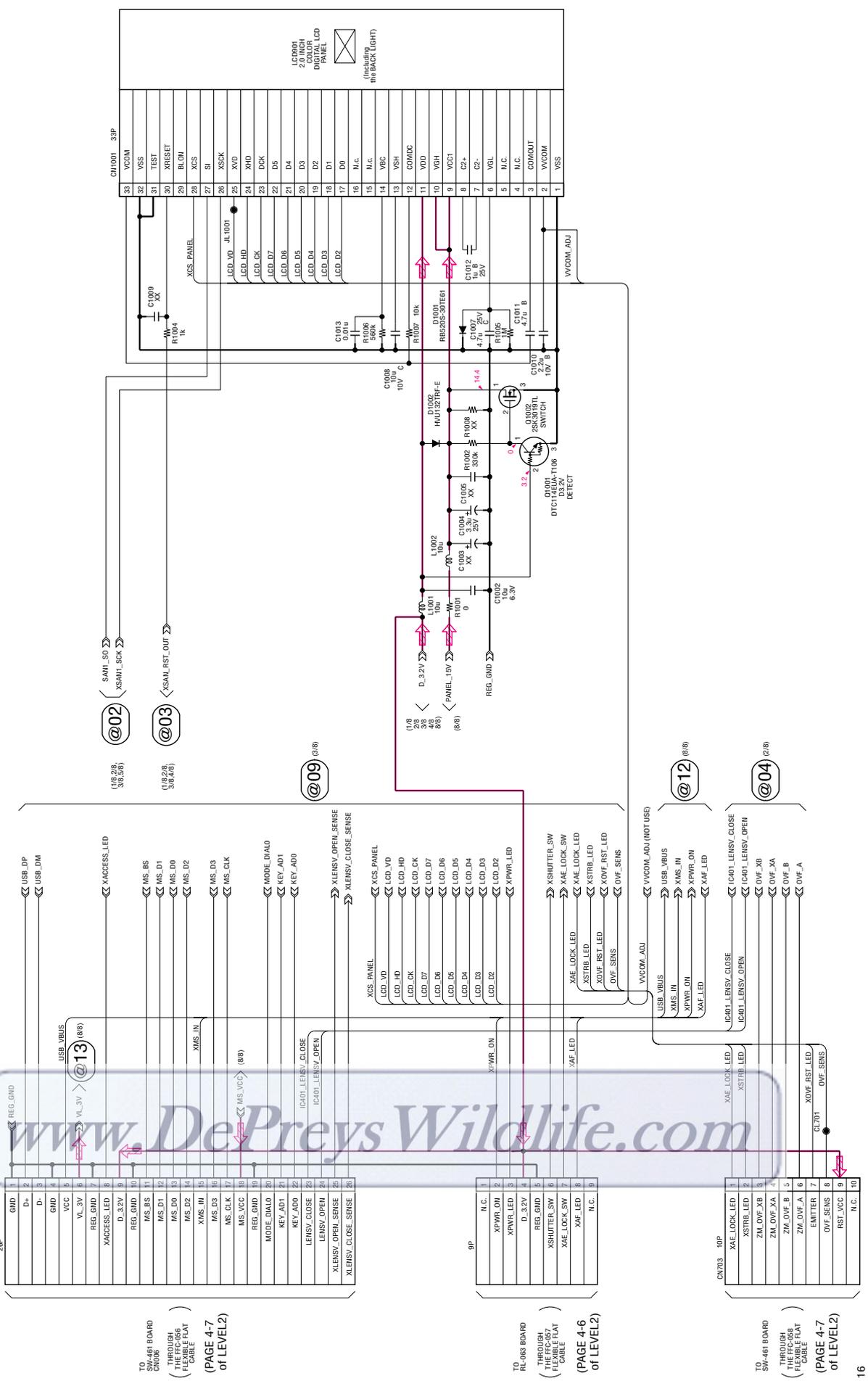




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1 2 3 4 5 6 7 8 9 10 11 12 13

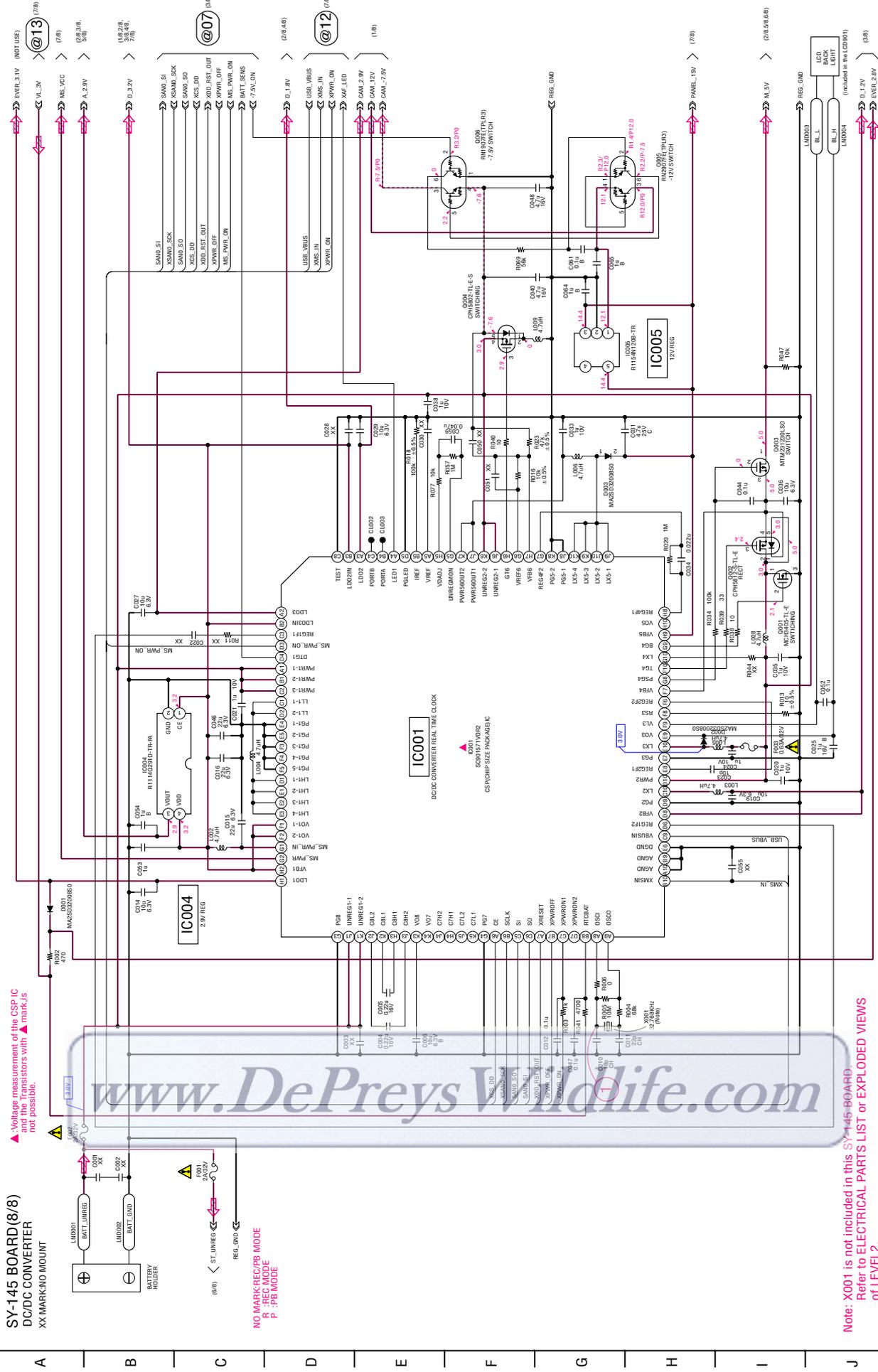
SY-145 BOARD(7/8)
LCD PANEL, CONNECTOR
 XX MARK:NO MOUNT
 NO MARK:REC/PB MODE



• Refer to page 4-3 for mark Δ.

SY-145 BOARD(8/8) DC/DC CONVERTER

XX MARK:NO MOUNT



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

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

Note: X001 is not included in this SY-145 BOARD
Refer to ELECTRICAL PARTS LIST or EXPLODED VIEWS of LEVEL2.

4-3. PRINTED WIRING BOARDS

Link

• [SY-145 BOARD \(SIDE A\)](#)

• [SY-145 BOARD \(SIDE B\)](#)

• [COMMON NOTE FOR SCHEMATIC DIAGRAMS](#)

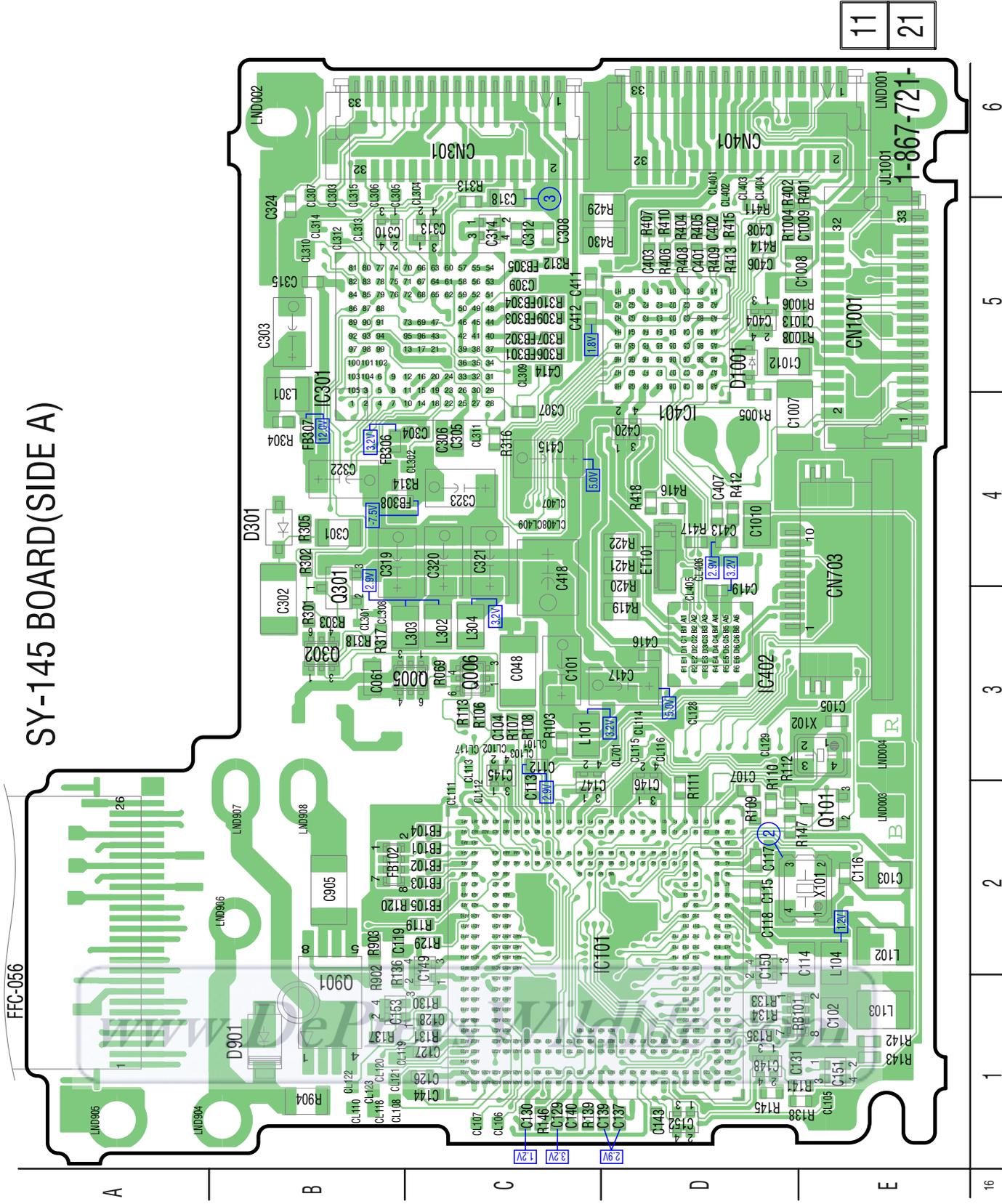
• [WAVEFORMS](#)

• [MOUNTED PARTS LOCATION](#)

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4-3. PRINTED WIRING BOARDS

SY-145 (8 layers) • **UF** : Uses unleaded solder.



16

1

2

3

4

5

6

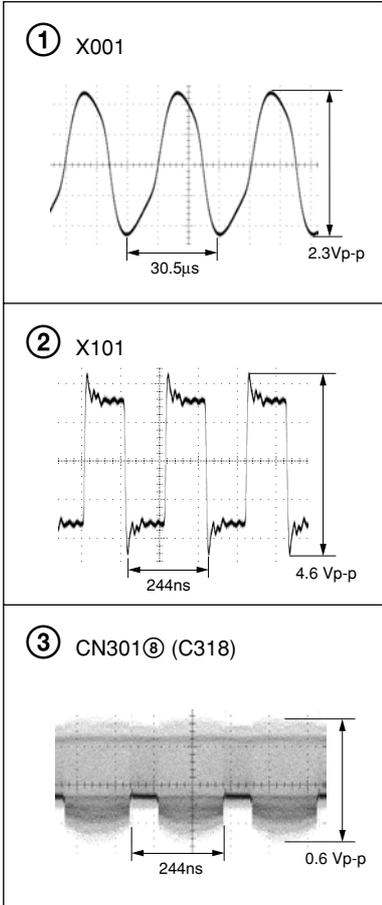
11

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4-3. PRINTED WIRING BOARDS

4-4. WAVEFORMS

SY-145 BOARD



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4-3. PRINTED WIRING BOARDS

4-5. MOUNTED PARTS LOCATION

no mark : side A
* mark : side B

SY-145 BOARD

* C001	D-1	* C207	C-5	CL103	C-3	FB301	C-5	* R016	C-2	* R604	D-4
* C002	D-1	* C208	E-5	* CL104	C-5	FB302	C-5	* R018	E-3	* R605	E-5
* C003	D-4	* C209	C-5	CL105	E-1	FB303	C-5	* R020	C-2	* R607	D-4
* C004	C-4	* C210	D-6	CL106	C-1	FB304	C-5	* R023	C-2	R902	B-1
* C005	C-4	* C211	D-6	CL107	C-1	FB305	C-5	* R034	B-2	R903	B-2
* C006	C-4	* C212	E-5	CL108	B-1	FB306	B-4	* R038	C-2	R904	B-1
* C010	D-3	* C213	E-5	* CL109	D-4	FB307	B-4	* R039	C-2	* R1001	E-1
* C011	D-3	* C214	E-5	CL110	B-1	FB308	C-4	* R040	C-3	* R1002	E-3
* C012	D-1	* C215	C-3	CL111	C-2			* R041	E-3	R1004	D-5
* C014	D-4	* C216	C-5	CL112	C-2	* IC001	C-3	* R044	D-2	R1005	D-4
* C015	D-4	C301	B-4	CL113	C-3	* IC004	D-4	* R047	C-2	R1006	D-5
* C016	D-4	C302	B-3	CL114	D-3	* IC005	C-3	* R057	C-3	* R1007	D-2
* C019	D-1	C303	B-5	CL115	D-3	IC101	C-2	R069	C-3	R1008	D-5
* C020	C-2	C304	C-4	CL116	D-3	* IC201	C-5	* R077	D-2		
* C021	D-3	C305	C-4	CL117	C-3	* IC202	D-5	R103	C-3	RB101	D-1
* C022	D-4	C306	C-4	CL118	B-1	* IC203	B-4	* R105	E-5		
* C023	D-2	C307	C-4	CL119	B-1	IC301	B-4	R106	C-3	* T901	A-5
* C024	C-2	C308	C-5	CL120	B-1	IC401	D-4	R107	C-3		
* C025	D-2	C309	C-5	CL121	B-1	IC402	D-3	R108	C-3	* X001	D-2
* C027	D-3	C310	B-5	CL122	B-1	* IC601	D-4	R109	D-2	X101	E-2
* C028	D-3	C312	C-5	CL123	B-1	* IC901	B-6	R110	D-3	X102	D-3
* C029	D-3	C313	C-5	* CL124	C-5			R111	D-2		
* C030	E-3	C314	C-5	* CL125	C-6	JL1001	E-6	R112	D-3		
* C031	C-2	C315	B-5	* CL126	C-4			R113	C-3		
* C033	B-2	C318	C-6	* CL127	C-4	* L002	D-4	R119	C-2		
* C034	C-3	C319	B-4	CL128	D-3	* L003	D-2	R120	B-2		
* C035	C-1	C320	C-4	CL129	D-3	* L004	E-4	R129	C-2		
* C036	C-1	C321	C-4	* CL201	C-5	* L005	C-2	R130	C-1		
* C038	C-3	C322	B-4	* CL202	C-5	* L006	C-2	R131	C-1		
* C040	C-3	C323	C-4	* CL203	C-5	* L008	C-1	R133	D-1		
* C044	B-1	C324	B-5	* CL204	D-6	* L009	C-3	R134	D-1		
* C046	D-4	C401	D-5	* CL205	E-5	L101	C-3	R135	D-1		
* C047	E-3	C402	D-5	* CL206	E-5	L102	E-2	R136	B-1		
C048	C-3	C403	D-5	CL301	B-3	L103	E-1	R137	B-1		
* C050	C-2	C404	D-5	CL302	C-4	L104	E-2	R138	D-1		
* C051	C-2	C406	D-5	CL303	B-6	* L201	E-5	R139	C-1		
* C052	D-1	C407	D-4	CL304	C-6	L301	B-4	* R140	C-6		
* C053	D-4	C408	D-5	CL305	B-6	L302	C-3	R141	D-1		
* C054	D-4	C411	C-5	CL306	B-6	L303	C-3	R142	E-1		
* C055	D-1	C412	C-5	CL307	B-6	L304	C-3	R143	E-1		
* C059	C-2	C413	D-4	CL308	B-3	* L601	D-4	* R144	C-6		
C061	B-3	C414	C-5	CL309	C-5	* L901	B-5	R145	D-1		
* C064	C-3	C415	C-4	CL310	B-5	* L1001	E-3	R146	C-1		
* C065	C-3	C416	D-3	CL311	C-4	* L1002	E-1	R147	E-2		
C101	C-3	C417	D-3	CL312	B-5			R301	B-3		
C102	E-1	C418	C-4	CL313	B-5	LND001	E-6	R302	B-4		
C103	E-2	C419	D-4	CL314	B-5	LND002	B-6	R303	B-3		
C104	C-3	C420	D-4	CL315	B-6	LND003	E-2	R304	B-4		
C105	E-3	* C601	E-5	CL401	D-6	LND004	E-3	R305	B-4		
C107	D-3	* C602	E-5	CL402	D-6	* LND601	B-1	R306	C-5		
C112	C-3	* C604	E-4	CL403	D-6	* LND602	B-2	R307	C-5		
C113	C-2	* C605	E-4	CL404	D-6	* LND603	E-1	R309	C-5		
C114	E-2	* C606	D-4	CL405	D-3	* LND604	E-2	R310	C-5		
C115	D-2	* C607	E-4	CL406	D-4	* LND901	B-6	R312	C-5		
C116	E-2	* C608	E-5	CL407	C-4	* LND902	B-6	R313	C-6		
C117	D-2	* C609	D-4	CL408	C-4	* LND903	B-6	R314	C-4		
C118	D-2	* C610	E-4	CL409	C-4	LND904	A-1	R316	C-4		
C119	B-2	* C611	E-5	CL701	D-3	LND905	A-1	R317	B-3		
* C120	E-6	* C612	D-4			LND906	B-2	R318	B-3		
C126	C-1	* C613	D-4	CN301	C-6	LND907	B-2	R401	E-6		
C127	C-1	* C614	D-4	CN401	D-6	LND908	B-2	R402	D-6		
C128	C-1	* C901	B-5	CN703	E-4	* LND909	B-5	R404	D-5		
C129	C-1	* C902	B-5	CN1001	E-5	* LND910	B-5	R405	D-5		
C130	C-1	* C903	B-5					R406	D-5		
C131	D-1	* C904	B-5	* D001	D-4	* Q001	C-1	R407	D-5		
C137	D-1	C905	B-2	* D002	D-2	* Q002	C-1	R408	D-5		
* C138	C-6	* C906	B-6	* D003	C-2	* Q003	C-2	R409	D-5		
C139	D-1	* C907	B-5	D301	B-4	* Q004	C-3	R410	D-5		
C140	C-1	* C1002	E-3	D901	B-1	Q005	B-3	R411	D-5		
C143	D-1	* C1003	D-2	D1001	D-5	Q006	C-3	R412	D-4		
C144	C-1	* C1004	D-2	* D1002	E-2	Q101	E-2	R413	D-5		
C145	C-3	* C1005	E-3			Q301	B-3	R414	D-5		
C146	D-2	C1007	D-4	ET101	D-4	Q302	B-3	R415	D-5		
C147	C-2	C1008	E-5			Q901	B-1	R416	D-4		
C148	D-1	C1009	E-5	* F001	D-1	* Q1001	E-3	R417	D-4		
C149	C-2	C1010	D-4	* F002	D-1	* Q1002	E-3	R418	D-4		
C150	D-2	* C1011	E-2	* F003	C-2			R419	D-3		
C151	E-1	C1012	D-5			* R002	C-4	R420	D-4		
C152	D-1	C1013	D-5	FB101	C-2	* R003	D-1	R421	D-4		
C153	B-1			FB102	B-2	* R004	D-3	R422	D-4		
* C201	B-5	* CL002	D-3	FB102	C-2	* R005	D-3	R429	D-5		
* C204	B-5	* CL003	E-3	FB103	C-2	* R006	D-3	R430	D-5		
* C205	D-5	CL101	C-3	FB104	C-2	* R011	D-4	* R602	E-4		
* C206	D-6	CL102	C-3	FB105	C-2	* R013	D-2	* R603	E-4		

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 Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

Language that can be selected about SY-145 board

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

• Abbreviation

- AR : Argentine model
- AUS : Australian model
- BR : Brazilian model
- CH : Chinese model
- CND : Canadian model
- EE : East European model
- HK : Hong Kong model
- J : Japanese model
- JE : Tourist model
- KR : Korea model
- NE : North European model
- RU : Russian model



5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description
	A-1156-105-A	SY-145 BOARD, COMPLETE (SERVICE)(GP2)
	A-1156-106-A	SY-145 BOARD, COMPLETE (SERVICE)(GP3)
	A-1156-107-A	SY-145 BOARD, COMPLETE (SERVICE)(GP4)

△ C9001	1-112-767-11	CAP, ELECT 180uF (330V)
X001	1-760-840-11	VIBRATOR, CRYSTAL (32.768kHz)
	1-830-730-11	FLEXIBLE FLAT CABLE (FFC-056)
	1-830-731-11	FLEXIBLE FLAT CABLE (FFC-057)
△	1-479-571-11	FLASH UNIT
	1-964-308-11	HARNESS (HN-015)
	CAUTION2	TAPE, MOUNT PARTS FIXED
*	2-668-809-01	SHEET (FFC), RADIATION
*	2-670-905-01	SHEET (CON), RADIATION
	CAUTION1	TAPE, FFC FIXED
	A-1156-109-A	RL-063 BOARD, COMPLETE

		< DIODE >
D201	6-501-030-01	DIODE SML-412MWT86 (POWER)
LED901	6-500-505-01	DIODE OPY5052 (AF)
		< SWITCH >
* S201	1-786-912-21	TACTILE SWITCH (SHUTTER)
S202	1-786-885-21	SWITCH, TACTILE (POWER)
	Not supplied	SY-145 BOARD

		(SY-145 board is included in the COMPLETE of SY-145 board (SERVICE).)
		< CAPACITOR >
C004	1-127-715-91	CERAMIC CHIP 0.22uF 10% 16V
C005	1-127-715-91	CERAMIC CHIP 0.22uF 10% 16V
C006	1-137-710-11	CERAMIC CHIP 10uF 20% 6.3V
C010	1-164-856-81	CERAMIC CHIP 18PF 5% 50V
C011	1-164-858-11	CERAMIC CHIP 22PF 5% 50V
C012	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C014	1-137-710-11	CERAMIC CHIP 10uF 20% 6.3V
C015	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V
C016	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V
C019	1-137-710-11	CERAMIC CHIP 10uF 20% 6.3V
C020	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C021	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C023	1-164-850-11	CERAMIC CHIP 10PF 0.5PF 50V
C024	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
* C025	1-112-298-91	CERAMIC CHIP 1uF 10% 16V
C027	1-137-710-11	CERAMIC CHIP 10uF 20% 6.3V
C029	1-137-710-11	CERAMIC CHIP 10uF 20% 6.3V
C031	1-100-671-11	CERAMIC CHIP 4.7uF 20% 25V
C033	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C034	1-107-819-11	CERAMIC CHIP 0.022uF 10% 16V
C035	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C036	1-137-710-11	CERAMIC CHIP 10uF 20% 6.3V
C038	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C040	1-127-820-11	CERAMIC CHIP 4.7uF 10% 16V
C044	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V

Ref. No.	Part No.	Description
C046	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V
C047	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C048	1-127-820-11	CERAMIC CHIP 4.7uF 10% 16V
C052	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C053	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C054	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C059	1-119-923-11	CERAMIC CHIP 0.047uF 10% 10V
C061	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
C064	1-100-352-91	CERAMIC CHIP 1uF 20% 16V
C065	1-100-352-91	CERAMIC CHIP 1uF 20% 16V
C101	1-119-750-11	TANTAL. CHIP 22uF 20% 6.3V
C102	1-137-710-11	CERAMIC CHIP 10uF 20% 6.3V
C104	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C105	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C107	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C112	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C113	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C114	1-137-710-11	CERAMIC CHIP 10uF 20% 6.3V
C116	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C117	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C118	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C119	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C126	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C127	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C128	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C129	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C130	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C137	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C138	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C139	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C140	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C145	1-100-252-11	CERAMIC CHIP 0.1uF 10% 6.3V
C146	1-100-252-11	CERAMIC CHIP 0.1uF 10% 6.3V
C147	1-100-252-11	CERAMIC CHIP 0.1uF 10% 6.3V
C148	1-100-252-11	CERAMIC CHIP 0.1uF 10% 6.3V
C149	1-100-252-11	CERAMIC CHIP 0.1uF 10% 6.3V
C150	1-100-252-11	CERAMIC CHIP 0.1uF 10% 6.3V
C151	1-100-252-11	CERAMIC CHIP 0.1uF 10% 6.3V
C152	1-100-252-11	CERAMIC CHIP 0.1uF 10% 6.3V
C153	1-100-252-11	CERAMIC CHIP 0.1uF 10% 6.3V
C204	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C205	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C206	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C207	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C208	1-137-710-11	CERAMIC CHIP 10uF 20% 6.3V
C209	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C211	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C212	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C214	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C215	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V

CAUTION1 :
 For the part of 51: TAPE, FFC FIXED (2-662-566-01) , cut WOVEN (T0.25), FABRIC NON (3-706-631-01) into the desired length and use it. (Refer to page 5-4 of LEVEL2)

CAUTION2 :
 For the part of 58: TAPE, MOUNT PARTS FIXED (2-660-553-01), cut SHEET, ADHESIVE (2-649-300-01) into the desired length and use it. (Refer to page 5-4 of LEVEL2)

Ref. No.	Part No.	Description			
C301	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C302	1-137-988-91	CERAMIC CHIP	1uF	10%	35V
C303	1-107-687-11	TANTAL. CHIP	3.3uF	20%	20V
C304	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C305	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C306	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C307	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C308	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C309	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C310	1-100-252-11	CERAMIC CHIP	0.1uF	10%	6.3V
C312	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C313	1-100-252-11	CERAMIC CHIP	0.1uF	10%	6.3V
C314	1-100-252-11	CERAMIC CHIP	0.1uF	10%	6.3V
C315	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C318	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C319	1-131-862-91	TANTAL. CHIP	47uF	20%	4V
C320	1-131-862-91	TANTAL. CHIP	47uF	20%	4V
C321	1-100-539-91	TANTAL. CHIP	47uF	20%	6.3V
C322	1-107-687-11	TANTAL. CHIP	3.3uF	20%	20V
C323	1-165-897-11	TANTAL. CHIP	22uF	20%	10V
C401	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C402	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C404	1-100-252-11	CERAMIC CHIP	0.1uF	10%	6.3V
C406	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C407	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C408	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C411	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C412	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C415	1-100-539-91	TANTAL. CHIP	47uF	20%	6.3V
C416	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C417	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C419	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C420	1-100-252-11	CERAMIC CHIP	0.1uF	10%	6.3V
C601	1-100-415-11	CERAMIC CHIP	0.47uF	10%	6.3V
C602	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C604	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C605	1-117-614-81	CERAMIC CHIP	8200PF	10%	16V
C606	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C607	1-117-614-81	CERAMIC CHIP	8200PF	10%	16V
C608	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C609	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C610	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C612	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C613	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C614	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C901	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C902	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C903	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
* C905	1-112-832-21	CERAMIC CHIP	0.033uF	10%	250V
C906	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C907	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C1002	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C1004	1-100-502-11	TANTAL. CHIP	3.3uF	20%	25V
C1007	1-100-671-11	CERAMIC CHIP	4.7uF	20%	25V
C1008	1-100-966-91	CERAMIC CHIP	10uF	20%	10V
C1010	1-125-889-91	CERAMIC CHIP	2.2uF	10%	10V
C1011	1-100-503-11	CERAMIC CHIP	4.7uF	20%	10V
C1012	1-100-591-91	CERAMIC CHIP	1uF	10%	25V
C1013	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V

Ref. No.	Part No.	Description
< CONNECTOR >		
* CN301	1-817-564-51	CONNECTOR, FPC (ZIF) 33P
* CN401	1-817-564-51	CONNECTOR, FPC (ZIF) 33P
CN703	1-766-340-51	CONNECTOR, FFC/FPC 10P
* CN1001	1-817-564-51	CONNECTOR, FPC (ZIF) 33P
< DIODE >		
D001	6-500-813-01	DIODE MA2SD32008S0
D002	6-500-813-01	DIODE MA2SD32008S0
D003	6-500-813-01	DIODE MA2SD32008S0
D301	8-719-988-61	DIODE 1SS355TE-17
△ D901	6-501-096-01	DIODE CRF02 (TE85R)
D1001	8-719-069-29	DIODE RB520S-30TE61
D1002	8-719-056-23	DIODE HVU132TRF-E
< TERMINAL >		
ET101	1-780-112-11	TERMINAL, CONTACT
< FUSE >		
△ F001	1-576-415-21	FUSE 2A/32V
△ F002	1-576-415-21	FUSE 2A/32V
△ F003	1-576-570-11	FUSE, MICRO (1608 TYPE) 0.63A/32V
< FERRITE BEAD >		
FB101	1-469-580-11	INDUCTOR, FERRITE BEAD (1005)
FB102	1-469-580-11	INDUCTOR, FERRITE BEAD (1005)
FB103	1-469-580-11	INDUCTOR, FERRITE BEAD (1005)
FB104	1-469-580-11	INDUCTOR, FERRITE BEAD (1005)
FB105	1-469-580-11	INDUCTOR, FERRITE BEAD (1005)
FB301	1-218-990-81	SHORT CHIP 0 (Note 1)
FB302	1-218-990-81	SHORT CHIP 0 (Note 1)
FB303	1-218-990-81	SHORT CHIP 0 (Note 1)
FB304	1-218-990-81	SHORT CHIP 0 (Note 1)
FB305	1-400-620-21	INDUCTOR, FERRITE BEAD (1005)
FB306	1-400-331-11	FERRITE, EMI (SMD) (1005)
FB307	1-400-331-11	FERRITE, EMI (SMD) (1005)
FB308	1-400-331-11	FERRITE, EMI (SMD) (1005)
< IC >		
* IC001	6-709-120-01	IC SC901571VOR2
* IC004	6-708-445-01	IC R1114Q291D-TR-FA
* IC005	6-709-032-01	IC R1154N120B-TR
* IC101	8-753-251-12	IC CXD3199GG-T6
IC201	Not supplied	IC S99-50031-01-ER (Note 2)
* IC202	6-708-803-01	IC K4M56323PG-HG75T
* IC203	6-708-258-01	IC M5M25GZ2J1WG-B0
IC301	6-707-941-01	IC AD80080ABBCZRL
IC401	6-706-235-01	IC BU2344GLV-E2
IC402	6-706-173-01	IC BD6878GLU-E2
IC601	6-707-336-01	IC BH6414GLU-E2
IC901	6-707-555-01	IC TPS65552RGTR

Note 1 :
SHORT CHIP is mounted to the location where FB301, FB302, FB303 and FB304 are printed.

Note 2 :
A service for IC201 is not available because an adjustment is required before replacement.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description			
		< COIL >						
L002	1-469-553-21	INDUCTOR 4.7uH	R120	1-218-941-81	RES-CHIP	100	5%	1/16W
L003	1-400-784-21	INDUCTOR 4.7uH	R129	1-218-990-81	SHORT CHIP	0		
L004	1-456-499-11	INDUCTOR 4.7uH	R131	1-218-965-11	RES-CHIP	10K	5%	1/16W
L005	1-456-499-11	INDUCTOR 4.7uH	R133	1-218-953-11	RES-CHIP	1K	5%	1/16W
L006	1-456-499-11	INDUCTOR 4.7uH	R134	1-218-953-11	RES-CHIP	1K	5%	1/16W
L008	1-456-499-11	INDUCTOR 4.7uH	R135	1-218-953-11	RES-CHIP	1K	5%	1/16W
L009	1-456-499-11	INDUCTOR 4.7uH	R136	1-218-953-11	RES-CHIP	1K	5%	1/16W
L101	1-400-588-11	INDUCTOR, LAMINATE CHIP 10uH	R137	1-218-953-11	RES-CHIP	1K	5%	1/16W
L104	1-400-588-11	INDUCTOR, LAMINATE CHIP 10uH	R138	1-218-990-81	SHORT CHIP	0		
L201	1-400-588-11	INDUCTOR 0uH	R139	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
L301	1-469-561-21	INDUCTOR 100uH	R140	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
L302	1-400-588-11	INDUCTOR, LAMINATE CHIP 10uH	R142	1-218-973-11	RES-CHIP	47K	5%	1/16W
L303	1-400-588-11	INDUCTOR, LAMINATE CHIP 10uH	R143	1-218-973-11	RES-CHIP	47K	5%	1/16W
L304	1-400-675-11	INDUCTOR 10uH	R144	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
L901	1-412-026-11	INDUCTOR 1uH	R301	1-218-990-81	SHORT CHIP	0		
L1001	1-400-588-11	INDUCTOR, LAMINATE CHIP 10uH	R302	1-218-989-11	RES-CHIP	1M	5%	1/16W
L1002	1-400-588-11	INDUCTOR, LAMINATE CHIP 10uH	R303	1-218-981-11	RES-CHIP	220K	5%	1/16W
		< TRANSISTOR >	R304	1-218-929-11	RES-CHIP	10	5%	1/16W
Q001	8-729-056-01	TRANSISTOR MCH3405-TL-E	R305	1-218-977-11	RES-CHIP	100K	5%	1/16W
Q002	6-550-351-01	TRANSISTOR CPH5812-S-TL-E	R306	1-220-803-81	RES-CHIP	4.7	5%	1/16W
Q003	6-551-304-01	TRANSISTOR MTM231230LSO	R307	1-220-803-81	RES-CHIP	4.7	5%	1/16W
Q004	8-729-053-76	TRANSISTOR CPH5802-TL-E-S	R309	1-220-803-81	RES-CHIP	4.7	5%	1/16W
Q005	6-550-509-01	TRANSISTOR RN2907FE (TPLR3)	R310	1-218-932-11	RES-CHIP	18	5%	1/16W
Q006	6-550-508-01	TRANSISTOR RN1907FE (TPLR3)	R312	1-218-990-81	SHORT CHIP	0		
Q301	8-729-029-14	TRANSISTOR DTC144EUA-T106	R313	1-218-990-81	SHORT CHIP	0		
Q302	8-729-054-47	TRANSISTOR UP04213008S0	R314	1-218-977-11	RES-CHIP	100K	5%	1/16W
Q901	6-550-656-01	TRANSISTOR CY25BAJ-8F-T23	R316	1-218-990-81	SHORT CHIP	0		
Q1001	8-729-907-00	TRANSISTOR DTC114EU	R317	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
Q1002	8-729-044-37	TRANSISTOR 2SK3019TL	R318	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
		< RESISTOR >	R401	1-218-948-11	RES-CHIP	390	5%	1/16W
R002	1-218-949-11	RES-CHIP 470 5% 1/16W	R402	1-218-948-11	RES-CHIP	390	5%	1/16W
R003	1-218-953-11	RES-CHIP 1K 5% 1/16W	R404	1-218-990-81	SHORT CHIP	0		
R004	1-218-975-11	RES-CHIP 68K 5% 1/16W	R405	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R005	1-219-570-11	METAL CHIP 10M 5% 1/10W	R406	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R006	1-218-990-81	SHORT CHIP 0	R408	1-218-970-11	RES-CHIP	27K	5%	1/16W
R013	1-208-635-11	METAL CHIP 10 0.5% 1/16W	R409	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R016	1-208-911-11	METAL CHIP 10K 0.5% 1/16W	R410	1-208-939-11	METAL CHIP	150K	0.5%	1/16W
R018	1-208-935-11	METAL CHIP 100K 0.5% 1/16W	R411	1-208-931-11	METAL CHIP	68K	0.5%	1/16W
R020	1-218-989-11	RES-CHIP 1M 5% 1/16W	R412	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W
R023	1-208-927-11	METAL CHIP 47K 0.5% 1/16W	R413	1-208-939-11	METAL CHIP	150K	0.5%	1/16W
R034	1-218-977-11	RES-CHIP 100K 5% 1/16W	R414	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R038	1-218-929-11	RES-CHIP 10 5% 1/16W	R415	1-218-970-11	RES-CHIP	27K	5%	1/16W
R039	1-218-935-11	RES-CHIP 33 5% 1/16W	R416	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R040	1-218-929-11	RES-CHIP 10 5% 1/16W	R417	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W
R041	1-218-961-11	RES-CHIP 4.7K 5% 1/16W	R418	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W
R047	1-218-965-11	RES-CHIP 10K 5% 1/16W	R419	1-211-969-11	METAL CHIP	10	0.5%	1/10W
R057	1-218-989-11	RES-CHIP 1M 5% 1/16W	R420	1-211-969-11	METAL CHIP	10	0.5%	1/10W
R069	1-218-974-11	RES-CHIP 56K 5% 1/16W	R421	1-211-969-11	METAL CHIP	10	0.5%	1/10W
R077	1-218-965-11	RES-CHIP 10K 5% 1/16W	R422	1-211-969-11	METAL CHIP	10	0.5%	1/10W
R106	1-218-969-11	RES-CHIP 22K 5% 1/16W	R429	1-216-311-00	RES-CHIP	6.8	5%	1/10W
R107	1-208-679-11	METAL CHIP 680 0.5% 1/16W	R430	1-216-311-00	RES-CHIP	6.8	5%	1/10W
R111	1-218-990-81	SHORT CHIP 0	R602	1-218-990-81	SHORT CHIP	0		
R112	1-218-990-81	SHORT CHIP 0	R603	1-218-849-11	METAL CHIP	1.2K	0.5%	1/10W
R113	1-218-957-11	RES-CHIP 2.2K 5% 1/16W	R604	1-218-985-11	RES-CHIP	470K	5%	1/16W
R119	1-218-941-81	RES-CHIP 100 5% 1/16W	R605	1-218-972-11	RES-CHIP	39K	5%	1/16W
			R607	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
			R902	1-243-975-11	METAL CHIP	4.7M	5%	1/16W
			R903	1-218-935-11	RES-CHIP	33	5%	1/16W
			R904	1-216-121-11	RES-CHIP	1M	5%	1/10W
			R1001	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			
R1002	1-218-983-11	RES-CHIP	330K	5%	1/16W
R1004	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1005	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1006	1-218-986-11	RES-CHIP	560K	5%	1/16W
R1007	1-218-965-11	RES-CHIP	10K	5%	1/16W

< COMPOSITION CIRCUIT BLOCK >

RB101	1-234-378-21	RES, NETWORK	10K (1005X4)
RB102	1-234-372-11	RES, NETWORK	100 (1005X4)

< TRANSFORMER >

△ T901	1-443-689-11	DC-DC CONVERTER, TRANSFORMER
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< VIBRATOR >

* X101	1-813-710-21	QUARTZ CRYSTAL OSCILLATOR (12MHz)
* X102	1-813-712-21	QUARTZ CRYSTAL OSCILLATOR (33.75MHz)

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