

Service Manual

ORDER NO.
RRV4458

CD Receiver System

X-HM51-K

X-HM51-S

X-HM51DAB-K

CD Receiver

XC-HM51-K,-S

XC-HM51DAB-K

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Serial No.	Remarks
X-HM51-K	SYXE8	AC 220 V to 240 V	&&&#####YY	YY:Europe
X-HM51-S	SYXE8	AC 220 V to 240 V	&&&#####YY	YY:Europe
X-HM51DAB-K	VXE8	AC 220 V to 240 V	&&&#####GB	GB:U.K
X-HM51-S	AXQ5	AC 220 V to 230 V	&&&#####CN	CN : China
XC-HM51-K	SYXE8	AC 220 V to 240 V	&&&#####YY	YY:Europe
XC-HM51-S	SYXE8	AC 220 V to 240 V	&&&#####YY	YY:Europe
XC-HM51DAB-K	VXE8	AC 220 V to 240 V	&&&#####GB	GB:U.K

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
X-HM21-K/SYXE8	RRV4394	

For SPECIFICATIONS and PANEL FACILITIES, refer to the operating instructions.

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The  mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

● Screws adjacent to ▼ mark on product are used for disassembly.

● For the applying amount of lubricants or glue, follow the instructions in this manual.

(In the case of no amount instructions, apply as you think it appropriate.)

● Nos. indicate the pages and Nos. in the service manual for the base model.

● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560Ω → 56 x 10¹ → 561 RD1/4PU    J

47kΩ → 47 x 10³ → 473 RD1/4PU    J

0.5Ω → R50 RN2H    K

1Ω → 1R0 RS1P    K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562 x 10¹ → 5621 RN1/4PC     F

CONTRAST TABLE

X-HM51

X-HM21-K/SYXE8, X-HM51-K/SYXE8, X-HM51-S/SYXE8, X-HM51DAB-K/VXE8 and X-HM51-S/AXQ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	X-HM21-K /SYXE8	X-HM51-K /SYXE8	X-HM51-S /SYXE8	X-HM51DAB-K /VXE8	X-HM51-S /AXQ5	Remarks
	P41-1	PCB ASSEMBLIES SERVICE CONTROL PCB	ABE205690-0001	ABE205910-0001	ABE205910-0001	ABE205910-0001	ABE205910-0001	
	P41-2	SERVICE POWER PCB	ABE205720-0001	ABE205820-0001	ABE205820-0001	ABE205820-0001	ABE205820-0001	
	P41-3	SERVICE MAIN PCB	ABE20586A-0002	ABE20584A-0001	ABE20584A-0001	ABE20584A-0002	ABE20584A-0001	
		PACKING SECTION						
	P39-1	iPad Stand	ASW200111-0001	ABN200111-0001	ABN200111-0001	ABN200111-0001	ABN200111-0001	
	P39-2	Speaker Assy	ANK50HM21-AM01	ESM205001-0603	ESM205001-0603	ESM205001-0603	ESM205001-0601	
	P39-4	Packing Case	ICG200082-0004	ICG200084-0001	ICG200084-0003	ICG200084-0002	ICC200116-0004	
	P39-5	Polyfoam (Upper)	ITF230173-0001	ITF230183-0001	ITF230183-0001	ITF230183-0001	ITF230183-0001	
	P39-6	Polyfoam (Bottom)	ITF231173-0001	ITF231183-0001	ITF231183-0001	ITF231183-0001	ITF231183-0001	
	P39-7	Polyfoam (Middle)	ITF232173-0001	Not used	Not used	Not used	Not used	
	P39-8	Power Cord	VPE003202-0040	VPE003202-0040	VPE003202-0040	VPE00A213-0030	VPE001201-0060	
	P39-9	AM Antenna Cable	VTA100009-0010	VTA100009-0010	VTA100009-0010	Not used	VTA100009-0010	
	P39-11	Remote Control Unit (AXD7706)	WIR248003-AM03	WIR248003-AM03	WIR248003-AM03	Not used	WIR248003-AM03	
	P39-11	Remote Control Unit (AXD7707)	Not used	Not used	Not used	WIR248003-AM04	Not used	
	P39-12	Operating Instructions (En/Fr/De/It/Nl/Es/Ru)	YOM200149-0001	Not used	Not used	Not used	Not used	
		Operating Instructions (En/Fr/De/It/Nl/Es/Ru)	Not used	YOM200153-0002	YOM200153-0002	Not used	Not used	
		Operating Instructions (En)	Not used	Not used	Not used	YOM200153-0003	Not used	
		Operating Instructions (Zhcn)	Not used	Not used	Not used	Not used	YOM200153-0004	
		Speaker Cord	Not used	ASW502001-0436	ASW502001-0436	ASW502001-0436	ASW502001-0436	
		Protection Sheet	Not used	IVA108021-0010	IVA108021-0010	IVA108021-0010	IVA108021-0010	
		Protection Sheet SP	Not used	IVS510001-0022	IVS510001-0022	IVS510001-0022	IVA508012-0910	
		Protection Paper SP	Not used	Not used	Not used	Not used	YLB524001-0238	
		Isorater	Not used	Not used	Not used	Not used	COT130040-0001	
		EXTERIOR SECTION						
	P41-7	Wire ASSY	VFC240212-1900	VFC240210-190R	VFC240210-190R	VFC240210-190R	VFC240210-190R	
	P41-8	Wire ASSY	VFL409202-2800	VWA200269-0001	VWA200269-0001	VWA200269-0001	VWA200269-0001	
	P41-9	Wire ASSY	VFL509202-3200	VFL509244-3400	VFL509244-3400	VFL509244-3400	VFL509244-3400	

Mark	No.	Symbol and Description	X-HM21-K /SYXE8	X-HM51-K /SYXE8	X-HM51-S /SYXE8	X-HM51DAB-K /VXE8	X-HM51-S /AXQ5	Remarks
	P41-10 P41-11	Front Panel Assy CD Door	ABN200120-0004 BPD200102-0001	ABN200138-0001 BPD200102-0001	ABN200138-0003 BPD200102-0002	ABN200138-0002 BPD200102-0001	ABN200138-0003 BPD200102-0002	A
	P41-12 P41-14 P41-15 P41-16 P41-17	Loader Bracket L Loader Bracket R Loader Cover Power Button Vol Knob	BPH200116-0001 BPH210116-0001 BPH220116-0001 BPK202032-0001 BPK205011-0001	BPH200116-1002 BPH210116-1002 BPH220116-1002 BPK202032-0001 GAL200132-0002	BPH200116-1002 BPH210116-1002 BPH220116-1002 BPK202032-0003 GAL200132-0001	BPH200116-1002 BPH210116-1002 BPH220116-1002 BPK202032-0001 GAL200132-0002	BPH200116-1002 BPH210116-1002 BPH220116-1002 BPK202032-0003 GAL200132-0001	
	P41-18 P41-20 P41-22 P41-24 P41-25	Function Button Top Cover Back Plate Screw 3X8 C Screw 3X8	BPK212032-0001 GSE200301-0001 GSE200303-0003 HSD053084-4081 HSP050054-3080	BPK212032-0001 GSE200301-0001 GSE200303-5019 HSD053084-4081 HST143084-3080	BPK212032-0003 GSE200301-0002 GSE200303-5020 HST143084-1080 HSP050054-3080	BPK212032-0001 GSE200301-0001 GSE200303-6024 HSD053084-4081 HST143084-3080	BPK212032-0003 GSE200301-0002 GSE200303-5022 HST143084-1080 HSP050054-3080	
	P41-29	Screw 3X6 C	HST053084-4060	HST053084-4060	HST143084-1060	HST053084-4060	HST143084-1060	
		Foot	Not used	BPE200013-0001	BPE200013-0001	BPE200013-0001	BPE200013-0001	No. 34
		Vol Knob Bracket	Not used	BPH200125-0001	BPH200125-0001	BPH200125-0001	BPH200125-0001	No. 35
		Pet Sheet	Not used	BFP226010-0001	BFP226010-0001	BFP226010-0001	BFP226010-0001	No. 36
		Wire Assy	Not used	VWA200268-0001	VWA200268-0001	VWA200268-0001	VWA200268-0001	No. 37
								B

Notes : The numbers in the remarks column correspond to the numbers on the "EXPLODED VIEWS".

XC-HM51

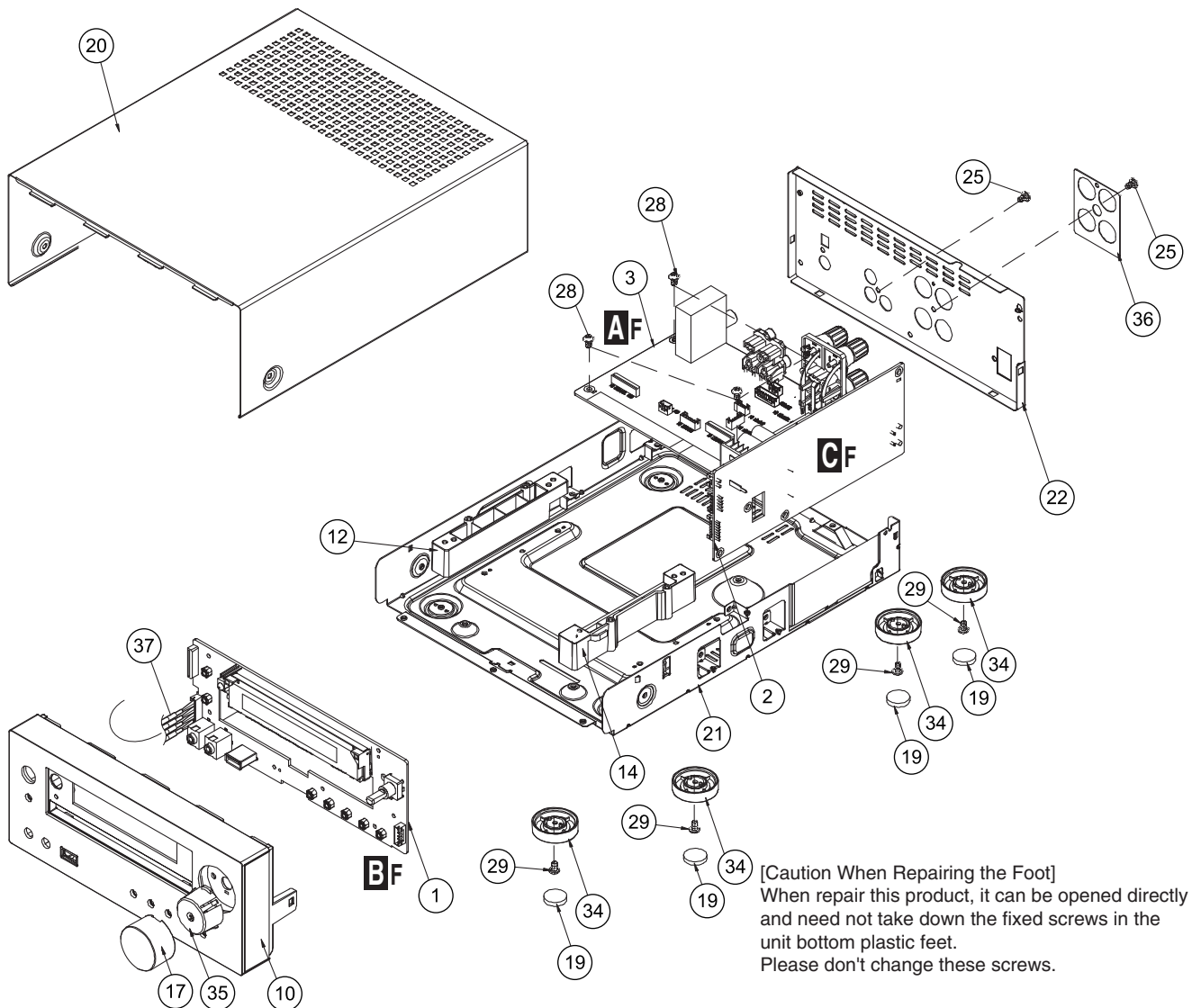
X-HM21-K/SYXE8, XC-HM51-K/SYXE8, XC-HM51-S/SYXE8 and XC-HM51DAB-K/VXE8 are constructed the same except for the following:

Mark	No.	Symbol and Description	X-HM21-K /SYXE8	XC-HM51-K /SYXE8	XC-HM51-S /SYXE8	XC-HM51DAB-K /VXE8	Remarks	
⚠	P41-1	PCB ASSEMBLIES SERVICE CONTROL PCB	ABE205690-0001	ABE205910-0001	ABE205910-0001	ABE205910-0001	Receiver	
	P41-2	SERVICE POWER PCB	ABE205720-0001	ABE205820-0001	ABE205820-0001	ABE205820-0001		
	P41-3	SERVICE MAIN PCB	ABE20586A-0002	ABE20594A-0001	ABE20594A-0001	ABE20594A-0002		
	PACKING SECTION							
	P39-1	iPad Stand	ASW200111-0001	ABN200111-0001	ABN200111-0001	ABN200111-0001		
	P39-2	Speaker Assy	ANK50HM21-AM01	Not used	Not used	Not used		
	P39-4	Packing Case	ICG200082-0004	ICC200121-0001	ICC200121-0002	ICC200121-0003		
	P39-5	Polyfoam (Upper)	ITF230173-0001	ITF230186-0001	ITF230186-0001	ITF230186-0001		
	P39-6	Polyfoam (Bottom)	ITF231173-0001	ITF231186-0001	ITF231186-0001	ITF231186-0001		
	P39-7	Polyfoam (Middle)	ITF232173-0001	Not used	Not used	Not used		
	P39-8	Power Cord	VPE003202-0040	VPE003202-0040	VPE003202-0040	VPE00A213-0030		
	P39-9	AM Antenna Cable	VT A100009-0010	VTA100009-0010	VTA100009-0010	Not used		
	P39-11	Remote Control Unit (AXD7706)	WIR248003-AM03	WIR248003-AM03	WIR248003-AM03	Not used		
	P39-11	Remote Control Unit (AXD7707)	Not used	Not used	Not used	WIR248003-AM04		
	P39-12	Operating Instructions (En/Fr/De/It/Nl/Es/Ru)	YOM200149-0001	Not used	Not used	Not used		
		Operating Instructions (En/Fr/De/It/Nl/Es/Ru)	Not used	YOM200153-0011	YOM200153-0011	Not used		
		Operating Instructions (En)	Not used	Not used	Not used	YOM200153-0012		
		Protection Sheet	Not used	IVA108021-0010	IVA108021-0010	IVA108021-0010		
	EXTERIOR SECTION							
	P41-7	Wire ASSY	VFC240212-1900	VFC240210-190R	VFC240210-190R	VFC240210-190R		
P41-8	Wire ASSY	VFL409202-2800	VWA200269-0001	VWA200269-0001	VWA200269-0001			
P41-9	Wire ASSY	VFL509202-3200	VFL509244-3400	VFL509244-3400	VFL509244-3400			
P41-10	Front Panel Assy	ABN200120-0004	ABN200138-0007	ABN200138-0008	ABN200138-0009			
P41-11	CD Door	BPD200102-0001	BPD200102-0001	BPD200102-0002	BPD200102-0001			

Mark	No.	Symbol and Description	X-HM21-K /SYXE8	XC-HM51-K /SYXE8	XC-HM51-S /SYXE8	XC-HM51DAB-K /VXE8	Remarks
A	P41-12	Loader Bracket L	BPH200116-0001	BPH200116-1002	BPH200116-1002	BPH200116-1002	
	P41-14	Loader Bracket R	BPH210116-0001	BPH210116-1002	BPH210116-1002	BPH210116-1002	
	P41-15	Loader Cover	BPH220116-0001	BPH220116-1002	BPH220116-1002	BPH220116-1002	
	P41-16	Power Button	BPK202032-0001	BPK202032-0001	BPK202032-0003	BPK202032-0001	
	P41-17	Vol Knob	BPK205011-0001	GAL200132-0002	GAL200132-0001	GAL200132-0002	
	P41-18	Function Button	BPK212032-0001	BPK212032-0001	BPK212032-0003	BPK212032-0001	
	P41-20	Top Cover	GSE200301-0001	GSE200301-0001	GSE200301-0002	GSE200301-0001	
	P41-22	Back Plate	GSE200303-0003	GSE200303-5025	GSE200303-5026	GSE200303-6027	
	P41-24	Screw 3X8 C	HSD053084-4081	HSD053084-4081	HST143084-1080	HSD053084-4081	
	P41-25	Screw 3X8	HSP050054-3080	HST143084-3080	HSP050054-3080	HST143084-3080	
B	P41-29	Screw 3X6 C	HST053084-4060	HST053084-4060	HST143084-1060	HST053084-4060	
	Foot		Not used	BPE200013-0001	BPE200013-0001	BPE200013-0001	No. 34
	Vol Knob Bracket		Not used	BPH200125-0001	BPH200125-0001	BPH200125-0001	No. 35
	Pet Sheet		Not used	BFP226010-0001	BFP226010-0001	BFP226010-0001	No. 36
		Wire Assy	Not used	VWA200268-0001	VWA200268-0001	VWA200268-0001	No. 37

Notes : The numbers in the remarks column correspond to the numbers on the "EXPLODED VIEWS".

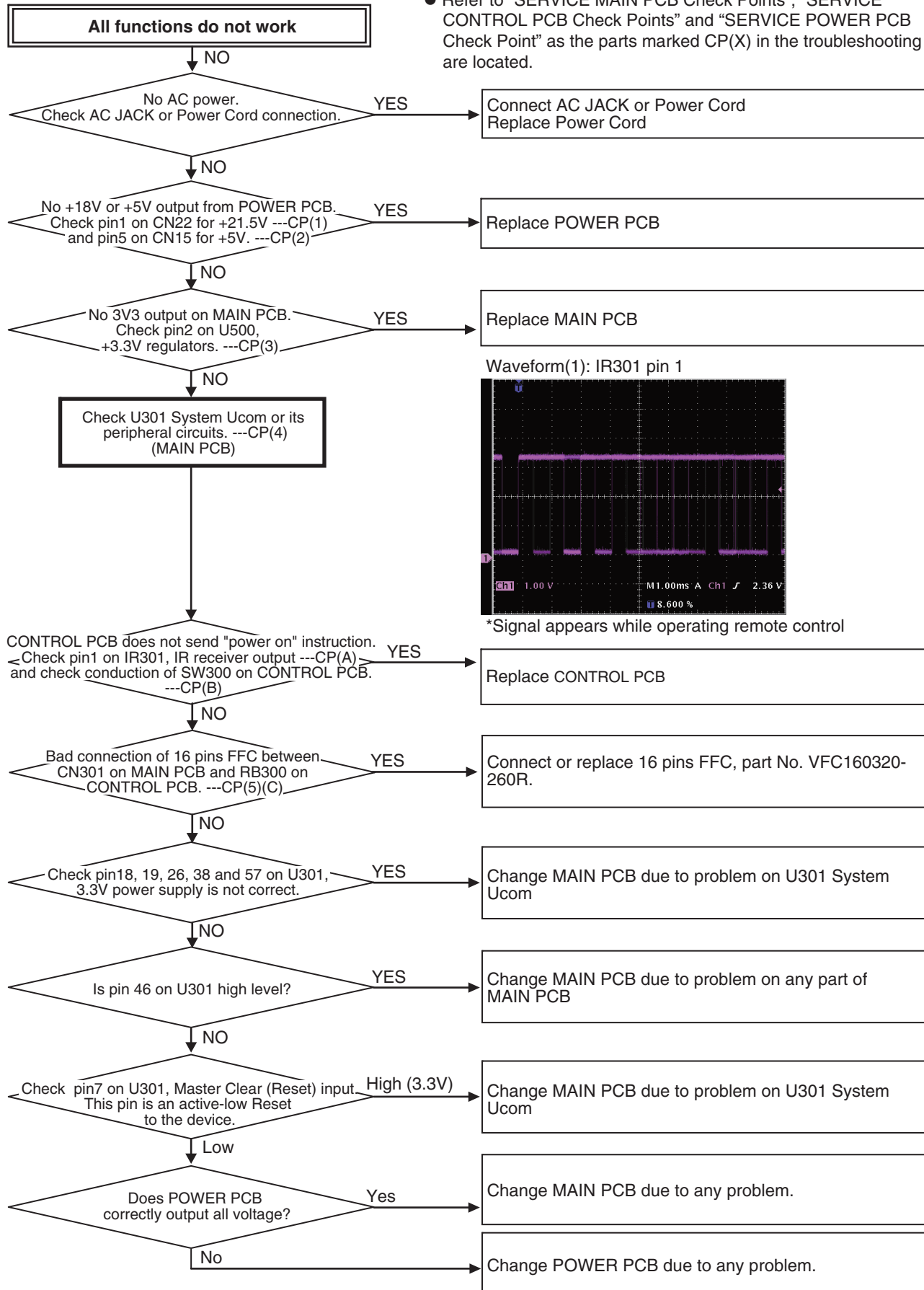
EXPLODED VIEWS EXTERIOR SECTION



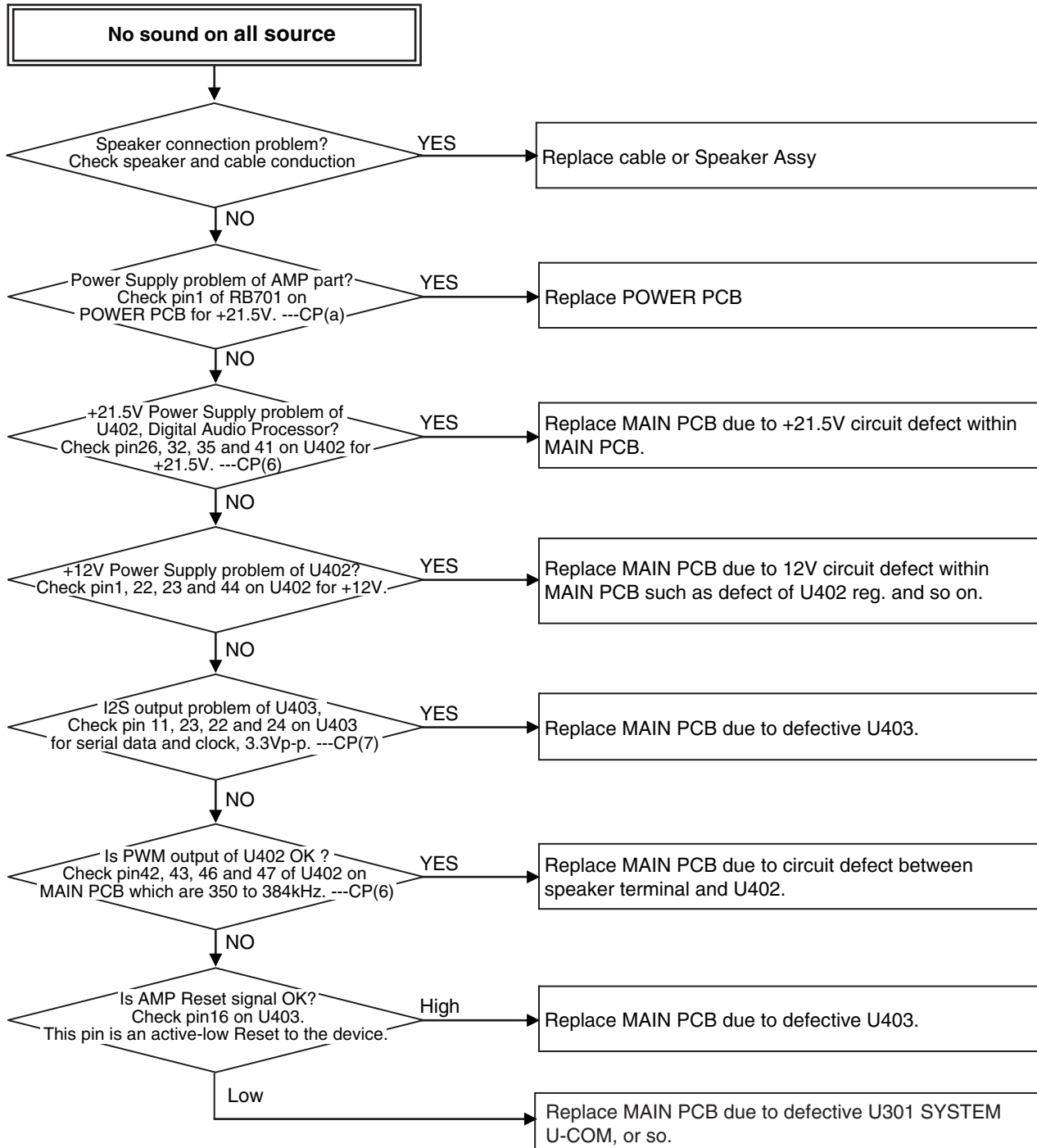
2. DIAGNOSIS

2.1 TROUBLESHOOTING

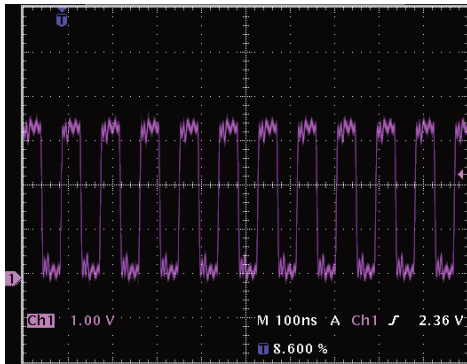
• No Power



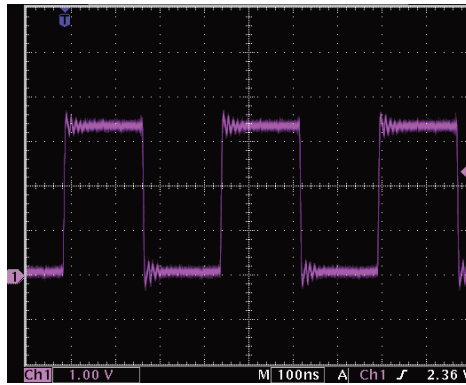
A • No Sound



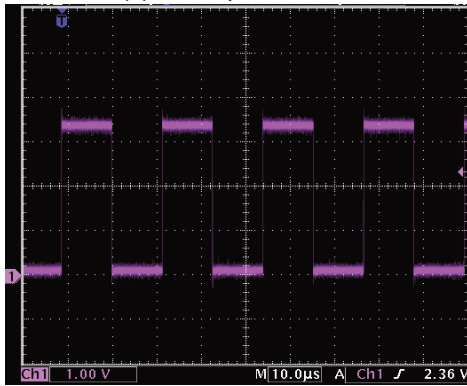
Waveform(2): U403 pin 11



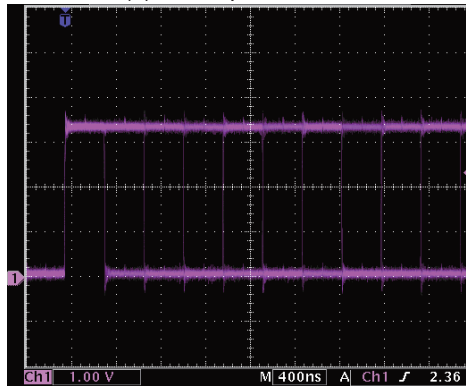
Waveform(3): U403 pin 23



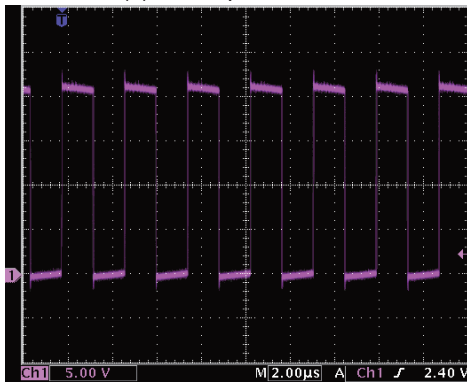
Waveform(4): U403 pin 22



Waveform(5): U403 pin 24



Waveform(6): U403 pin42, 43, 46 and 47



A

B

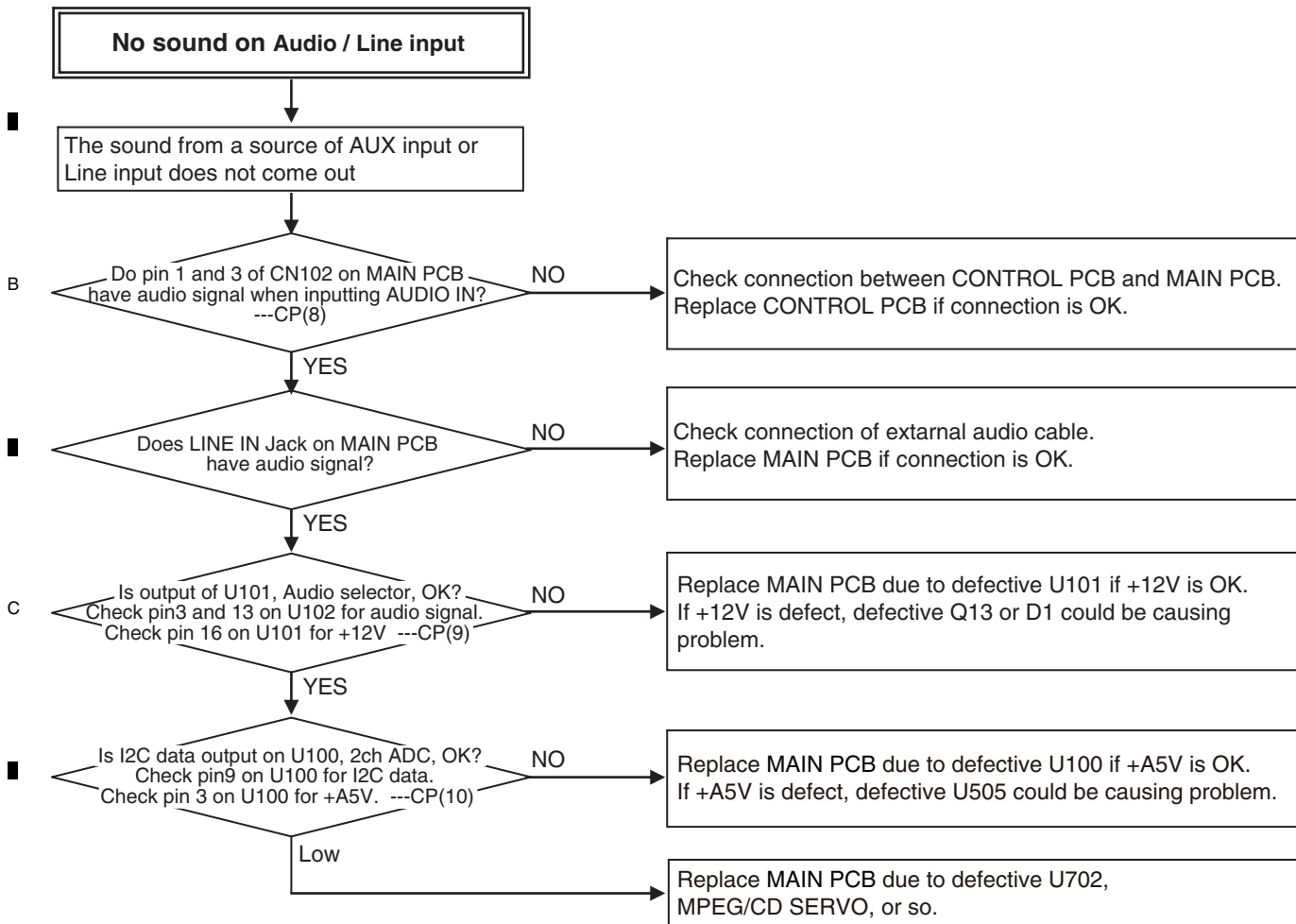
C

D

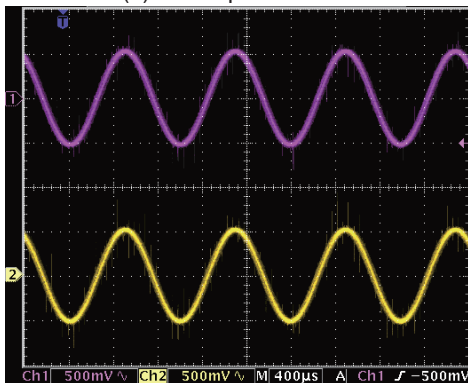
E

F

A • No Sound (Audio / Line)

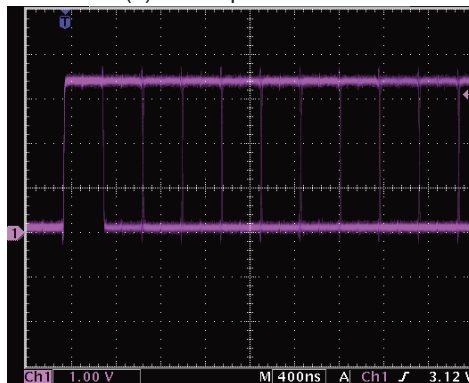


Waveform(7): U101 pin3 and 13

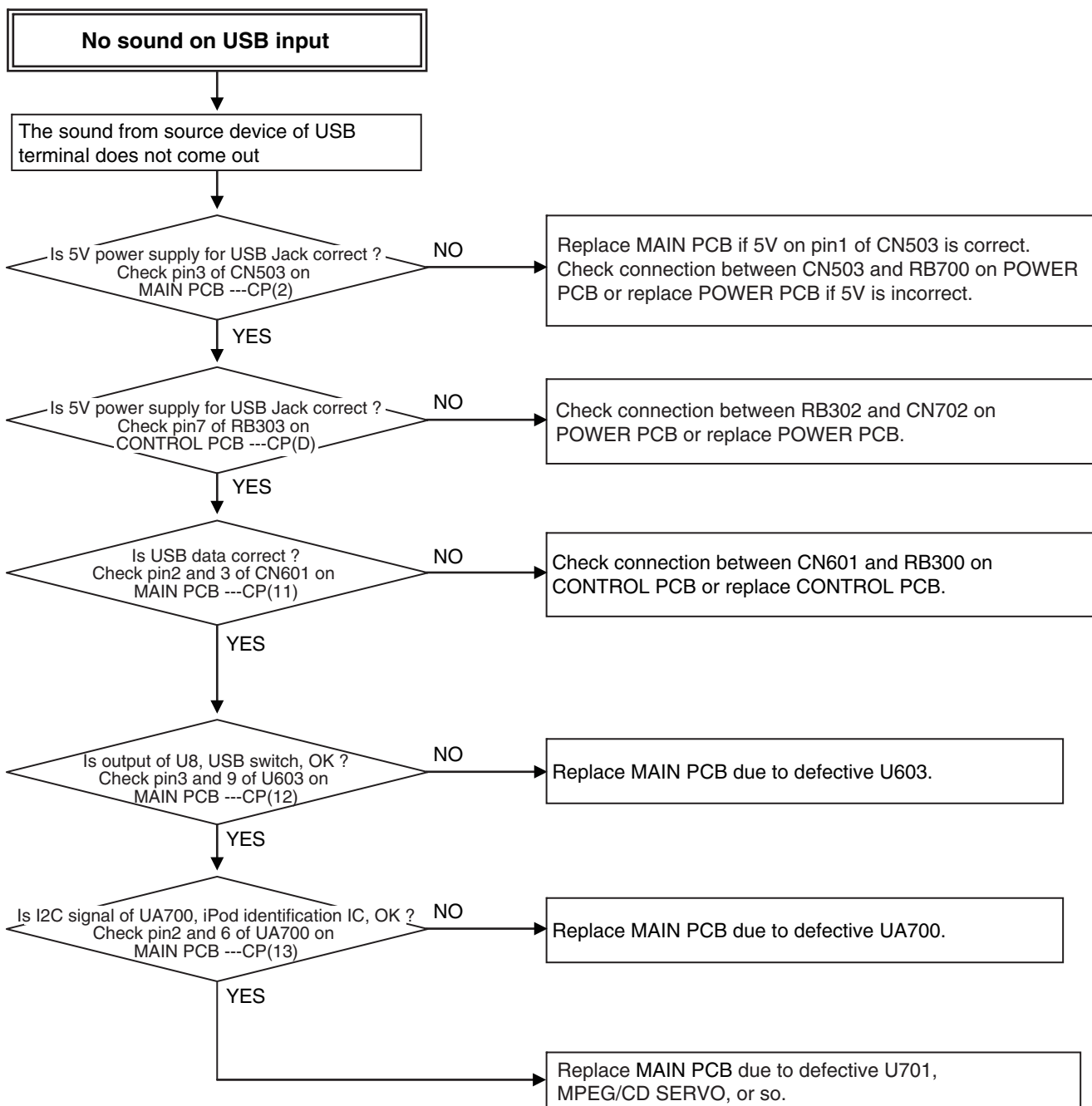


*Connected 1kHz audio

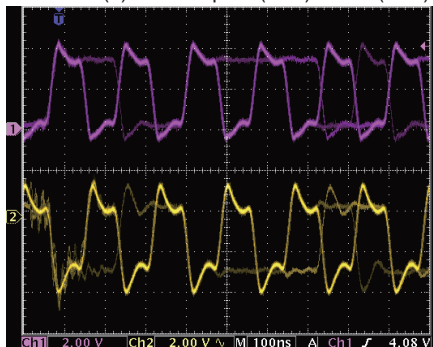
Waveform(8): U100 pin9



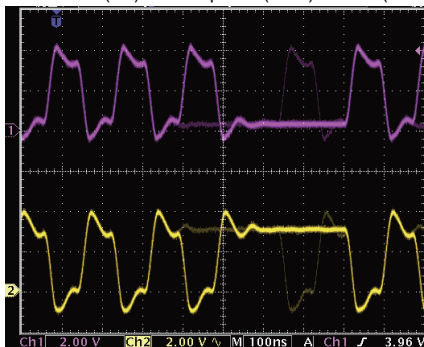
• No Sound (USB)



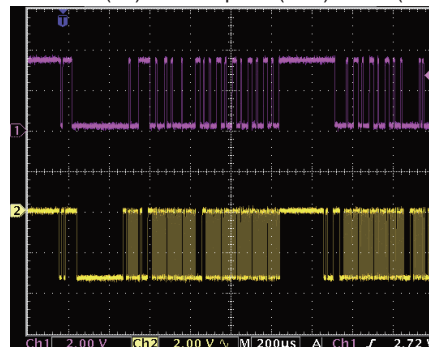
Waveform(9): CN601 pin2 (Ch1) and 3 (Ch2)



Waveform(10): U603 pin 3 (Ch1) and 9 (Ch2)

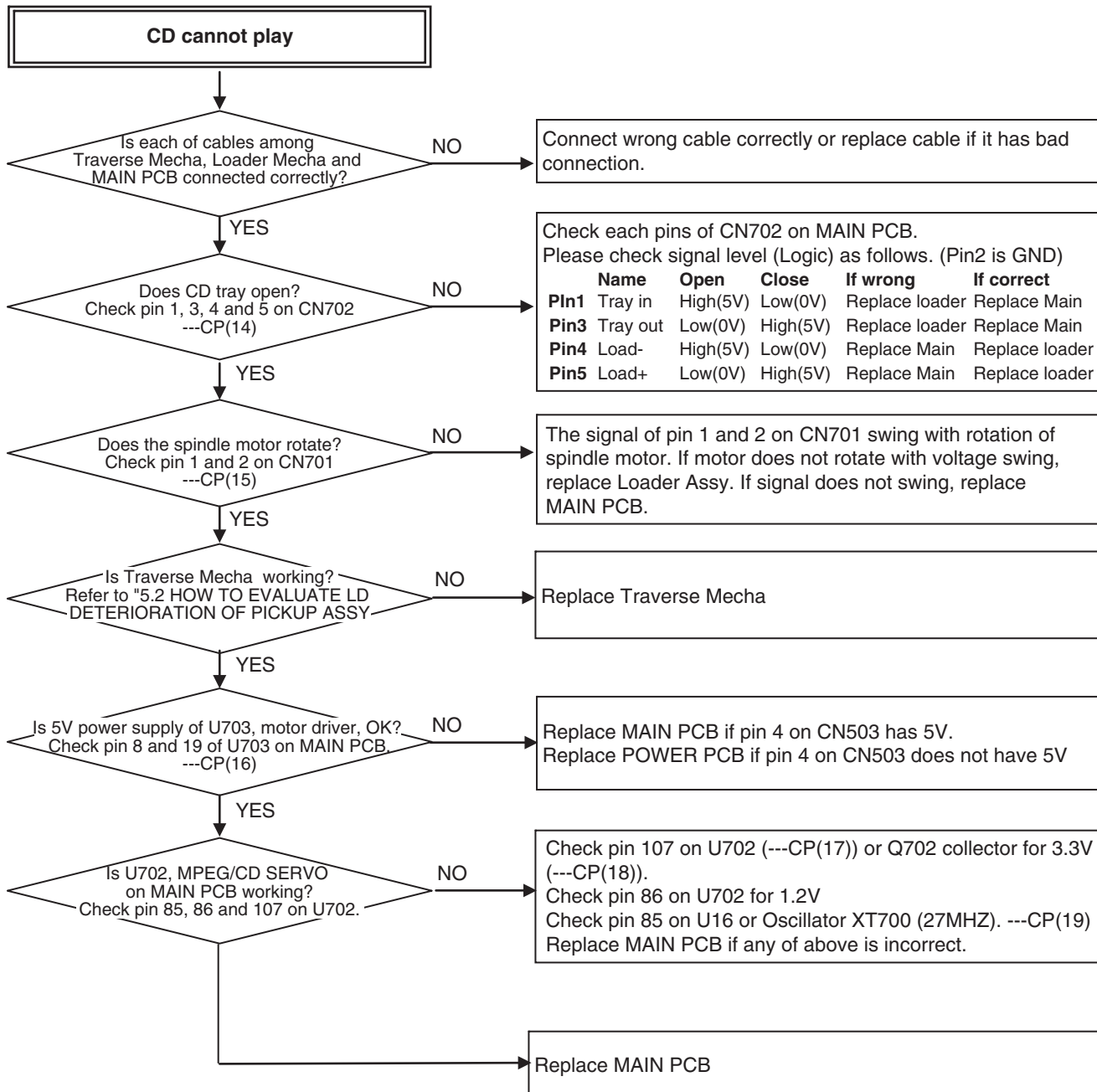


Waveform(11): UA700 pin 2 (Ch1) and 6 (Ch2)

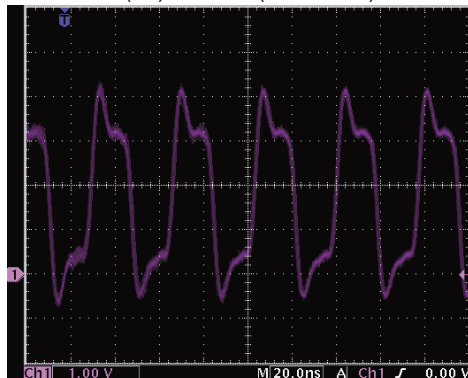


*Signal appears during iPod authentication, provoked by connecting device and so on.

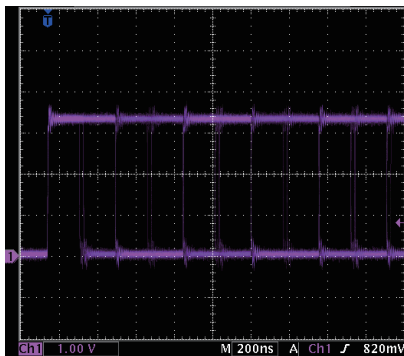
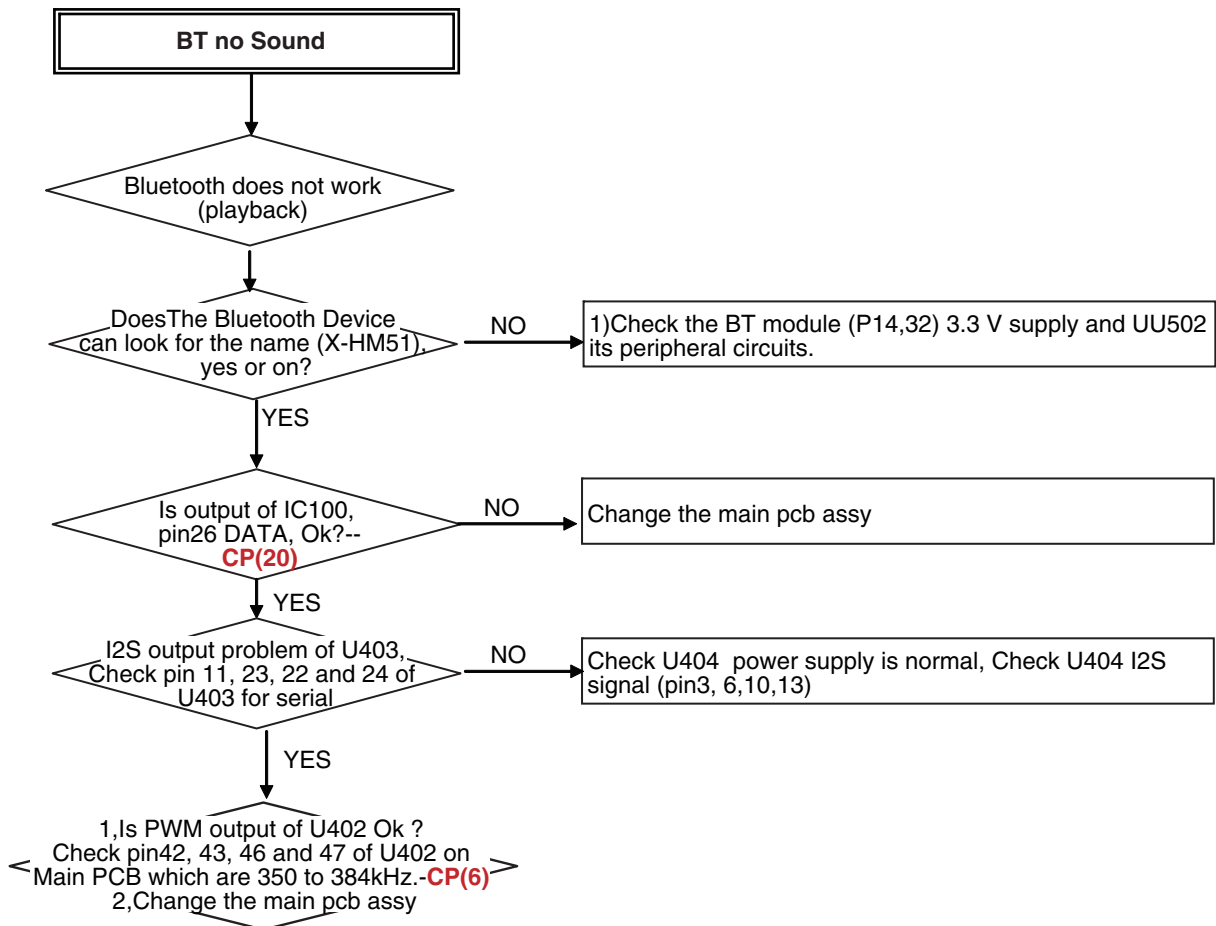
A • CD cannot play



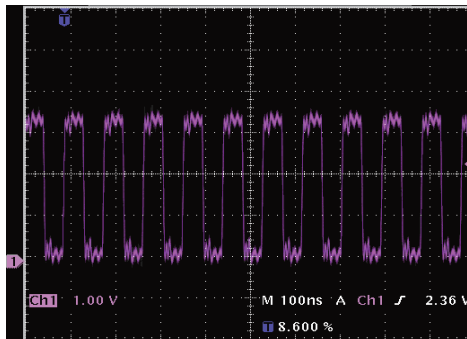
Waveform(12): XT700 (CLK OUT)



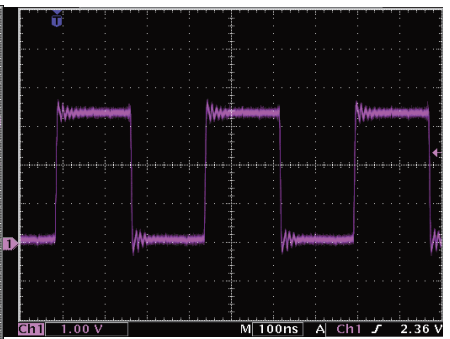
• BT no Sound



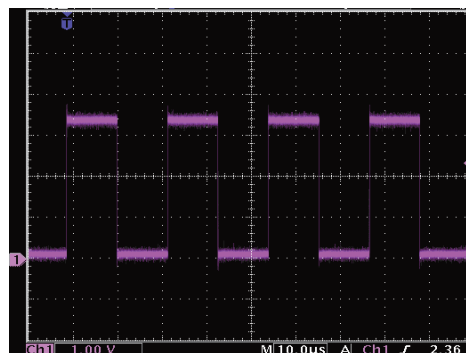
BT Module pin26



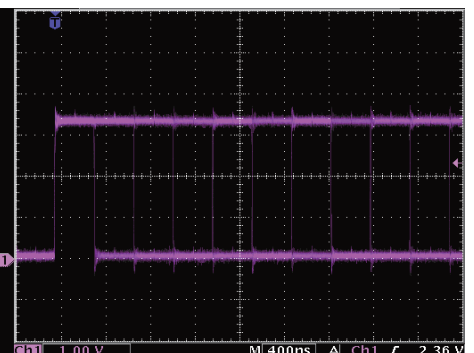
Waveform(2): U403 pin 11



Waveform(3): U403 pin 23

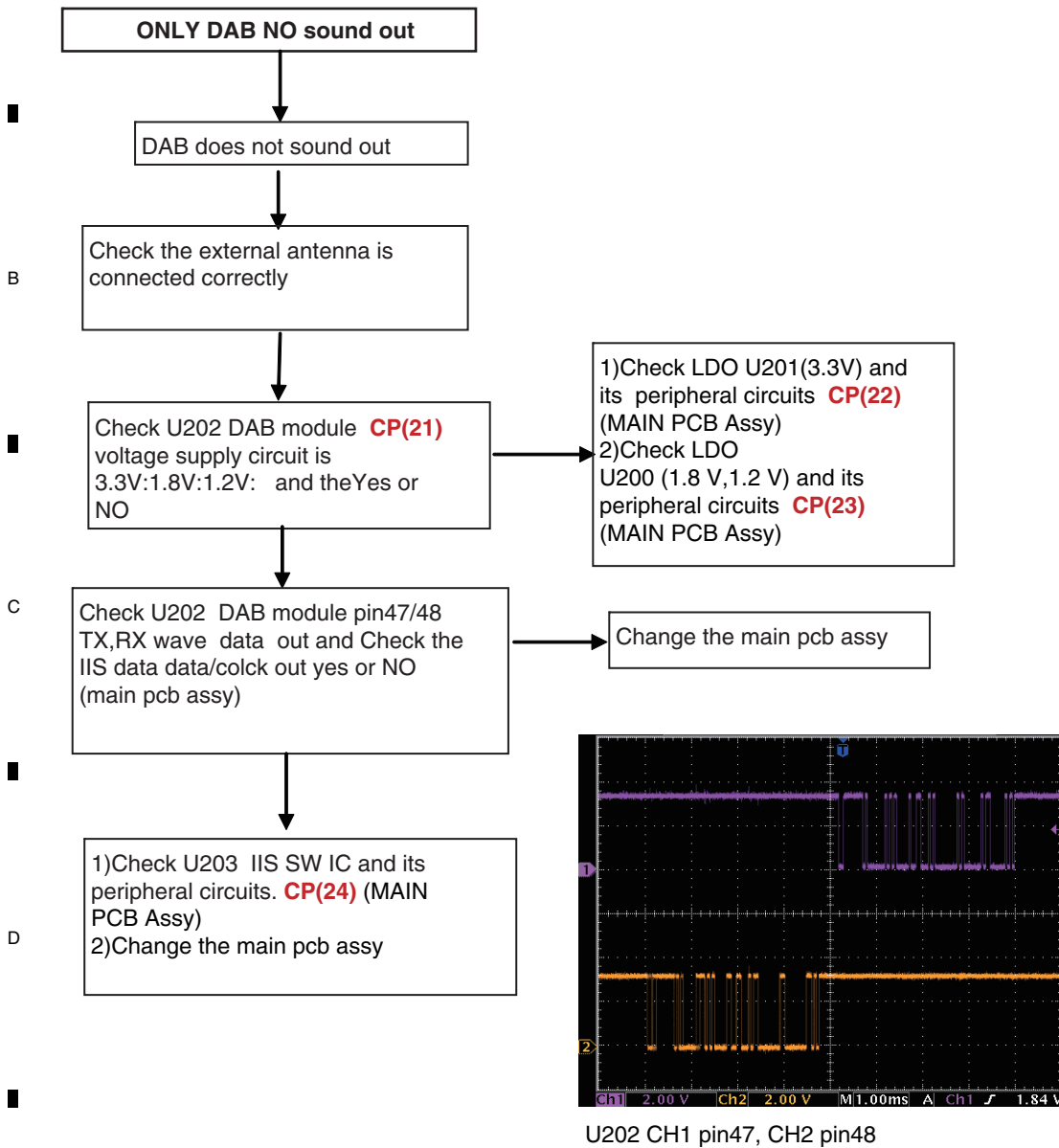


Waveform(4): U403 pin 22

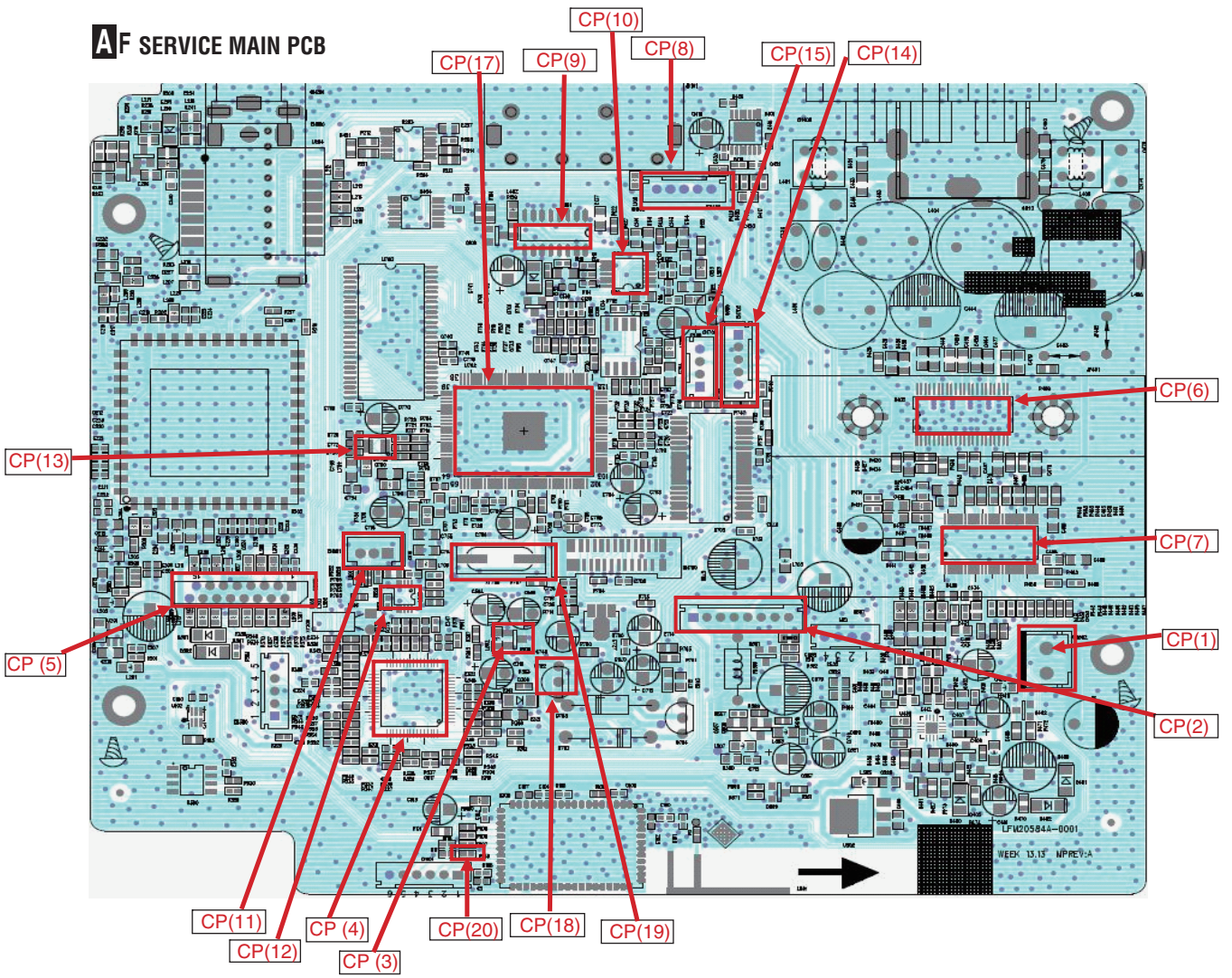


Waveform(5): U403 pin 24

A • DAB no Sound



■ SERVICE MAIN PCB Check Points

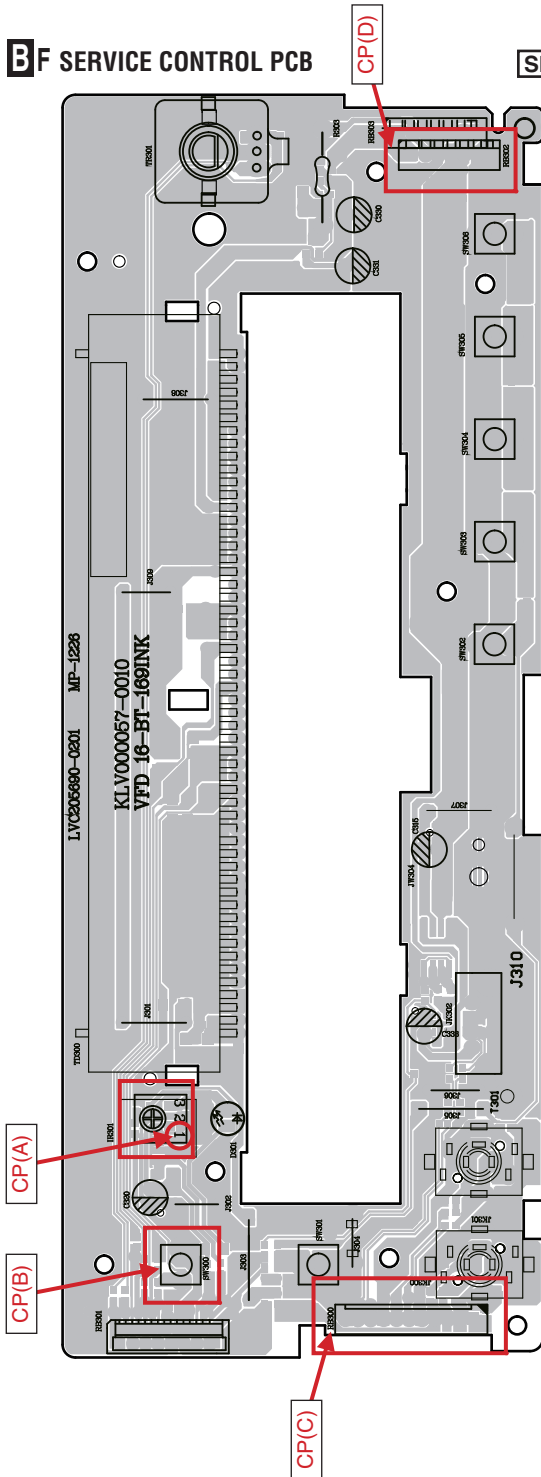


A ■ SERVICE CONTROL PCB Check Points

■ SERVICE POWER PCB Check Point

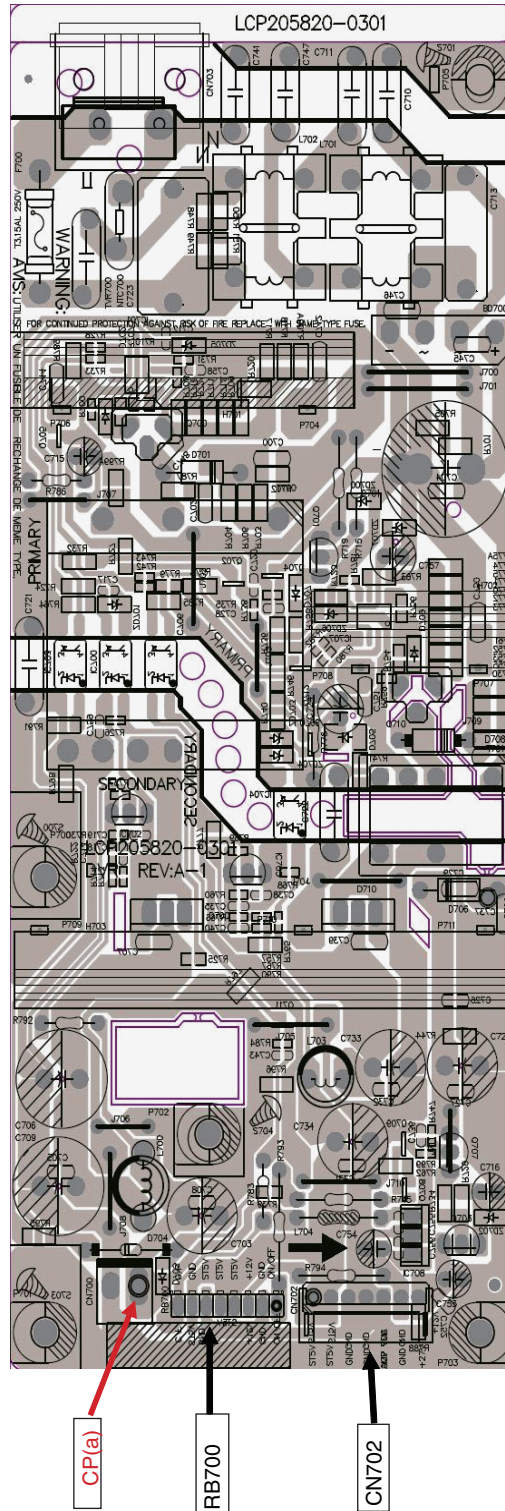
B F SERVICE CONTROL PCB

SIDE A



C F SERVICE POWER PCB

SIDE A



2.2 HOW TO EVALUATE LD DETERIORATION OF PICKUP ASSY

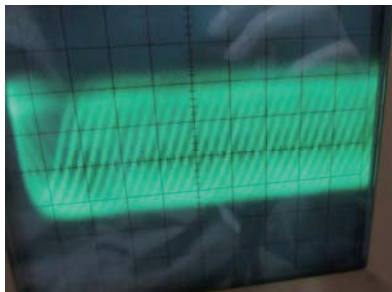
- If CD cannot be played, LD of Pickup ASSY may be deteriorated.

Carry out the evaluation in the following procedure.

- Evaluate the waveform of CN8 8 pin (refer to the photo) of SERVICE MAIN PCB.

→ RF level : 1.0V(+/-0.25V)

If the value is 0.75V or less, 780-nm LD is deteriorated.

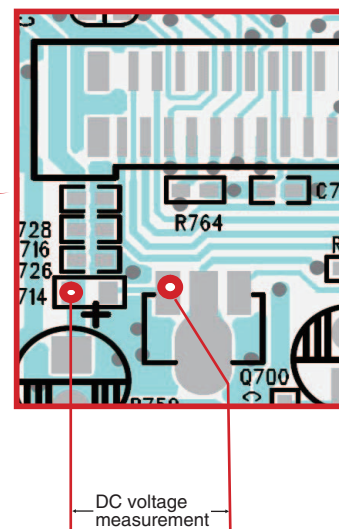
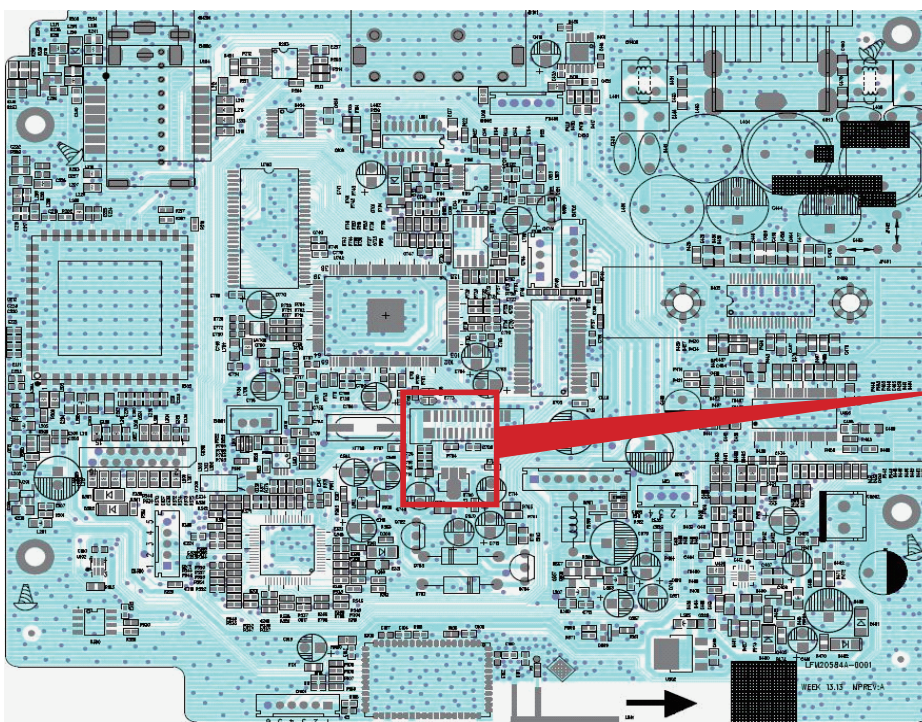


If LD is deteriorated based on the evaluation result, replace **Traverse Mecha** with a new one.

- Measure the voltage value between R714 TP and 3.3V TP of SERVICE MAIN PCB shown in the figure below.

→ If the value is 0.4V or more, 780-nm LD is deteriorated.

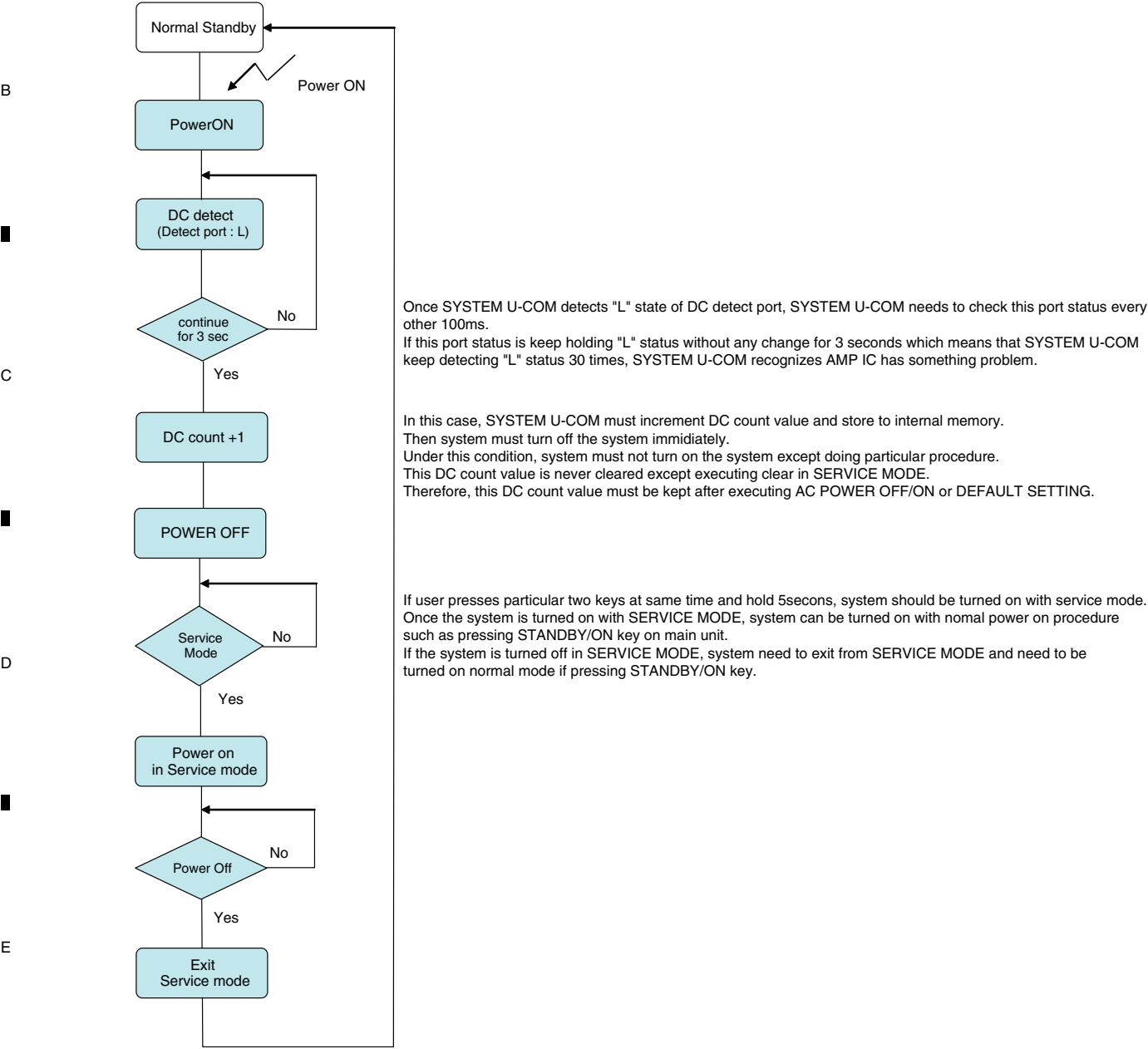
SERVICE MAIN PCB



A XC-HM51 and XC-HM51DAB which are CD receiver model without attaching dedicated speakers have DC detection circuit.
Please refer to following information for detection operation.

1. DC detection conditions
- SYSTEM U-COM must start checking with DC detect port status for every other 100ms without turning off the system, if once SYSTEM U-COM detects "L" state of DC detect port.
Detect Port : L state is for less than 3 seconds => Continue the Power ON state without Power OFF
Detect Port : L state has continued for more than 3 seconds => Power OFF , and not allow Power ON with normal operation.

2. DC detection flow



2.DC detection history

System records following history if Detecting Port : L state has continued for more than 3 seconds.

"DC : Number of detections"

3.Service mode

How to start service mode

Press "STANDBY/ON" key and "STOP" key on main unit at the same time and hold this condition for 5 seconds

Display DC detection history

VFD display 5x7 matrix (16 digits)															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				D	C	:		0	1						

How to clear DC detection history

select "CLEAR" by pressing TUNE+/- on remote or |<< / >>| on Main Unit, then press ENTER key or PLAY/PAUSE key on Main Unit to clear the histor in service mode.

VFD display 5x7 matrix (16 digits)															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				C	L	E	A	R							

Press ENTER key (RCU)
or
PLAY/PAUSE key on Main Unit

VFD display 5x7 matrix (16 digits)															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				D	O	N	E								

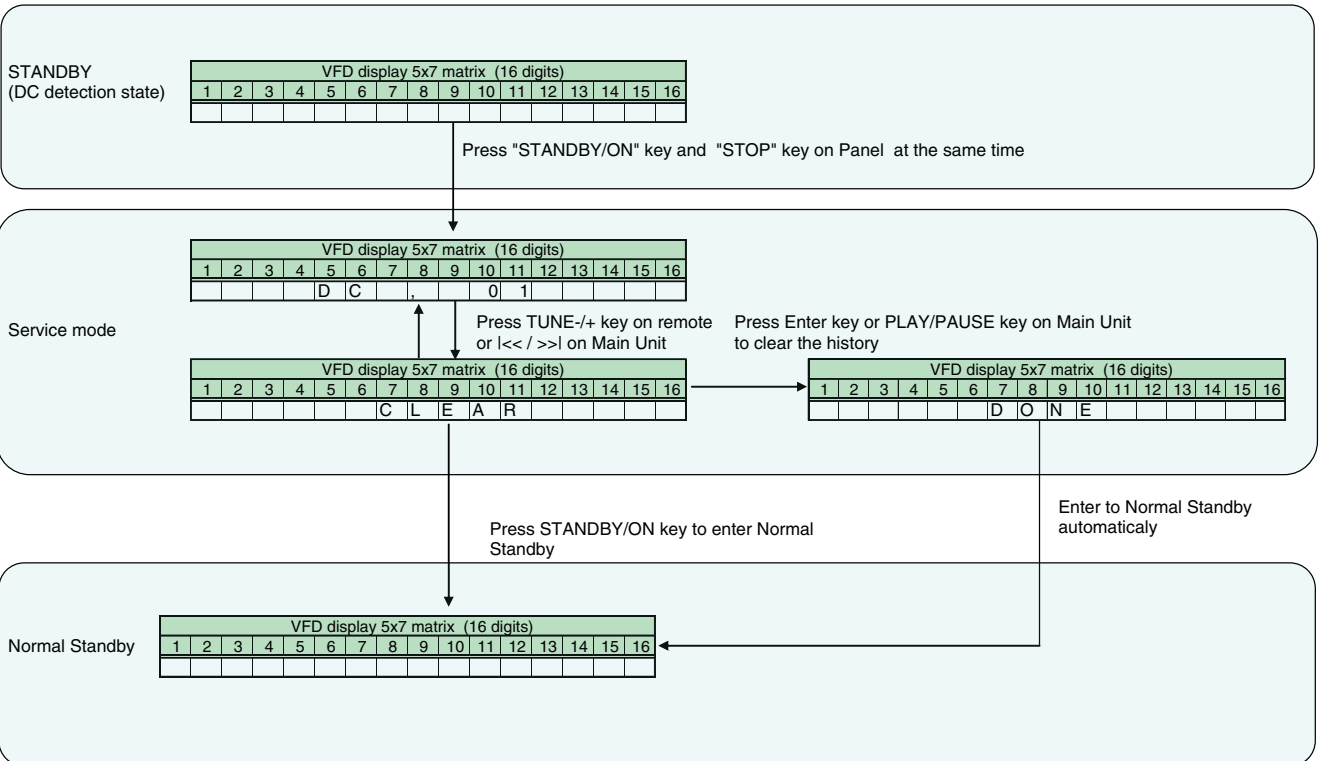
VFD display 5x7 matrix (16 digits)															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				D	C	:		0	1						

TUNE+
or
|<< (Main Unit)

TUNE-
or
>>| (Main Unit)

VFD display 5x7 matrix (16 digits)															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				C	L	E	A	R							

Service mode screen transition



3. SERVICE MODE

3.1 CONFIRM SOFTWARE VERSION AND DESTINATION INFORMATION

[Procedure]

1. Press STANDBY/ON key to turn on.
2. Press CD key to select CD function.
3. Press OPEN/CLOSE key to open disc tray.
4. Press STOP key.
5. Press 1 key.
6. Press 2 key.
7. Press 3 key.
8. Version and destination information appear in main display.
9. If pressing any key, information disappears.

[The example of information]

E_C22M27 (Non DAB model)

- *The first character indicates product destination.
 EU means Eroup destination except for UK.
 JP means Japan destination.
 CH means China destination.

- *C22M27 indicates software version.
 C22 means software version of CD module, SPHE8104GW is C22.
 M27 means software version of Main module, PIC18F66J11 is M27.
 C22M27 is for MP software.

E_C22M77 (DAB Model)

- *The first character indicates product destination.
 UK means United Kingdom destination.

- *C22M77 indicates software version.
 C22 means software version of CD module, SPHE8104GW is C22.
 M77 means software version of Main module, PIC18F66J11 is M77.
 C22M77 is for MP software.

3.2 HOW TO CHANGE THE DESTINATION

[Procedure]

1. Press STANDBY/ON key to turn on.
2. Press CD key to select CD function.
3. Press OPEN/CLOSE key to open disc tray.
4. Press STOP key.
5. Press 9.
6. Press 9.
7. Press 9.
8. [DEST CHG] blink in main display.
9. Select the destination by pressing LEFT or RIGHT key.
 [DEST EU] means Eroup destination except for UK.
 [DEST JP] means Japan destination.
 [DEST CH] means China destination.
10. Press ENTER key after selecting destination.
11. [WAITING] and [DEST OK] is displayed, then turn off automatically.

*If destination is changed, all settings return to default.
 (X-HM51DAB, XC-HM51DAB : Can not change DESTINATION.)

3.3 HOW TO CHANGE THE AM STEP

[Procedure]

1. Insert AC cord.
2. Not power on status, press and hold STOP key on main unit.
3. AM frequency step is displayed in main display.
 [AM 10KHZ STEP] means AM frequency is 10kHz step.
 [AM 9KHZ STEP] means AM frequency is 9kHz step.

*If changing the AM step, all AM presets return to default.
 (X-HM51DAB, XC-HM51DAB : Can not change AM frequency. X-HM51DAB and XC-HM51DAB has no AM Function.)

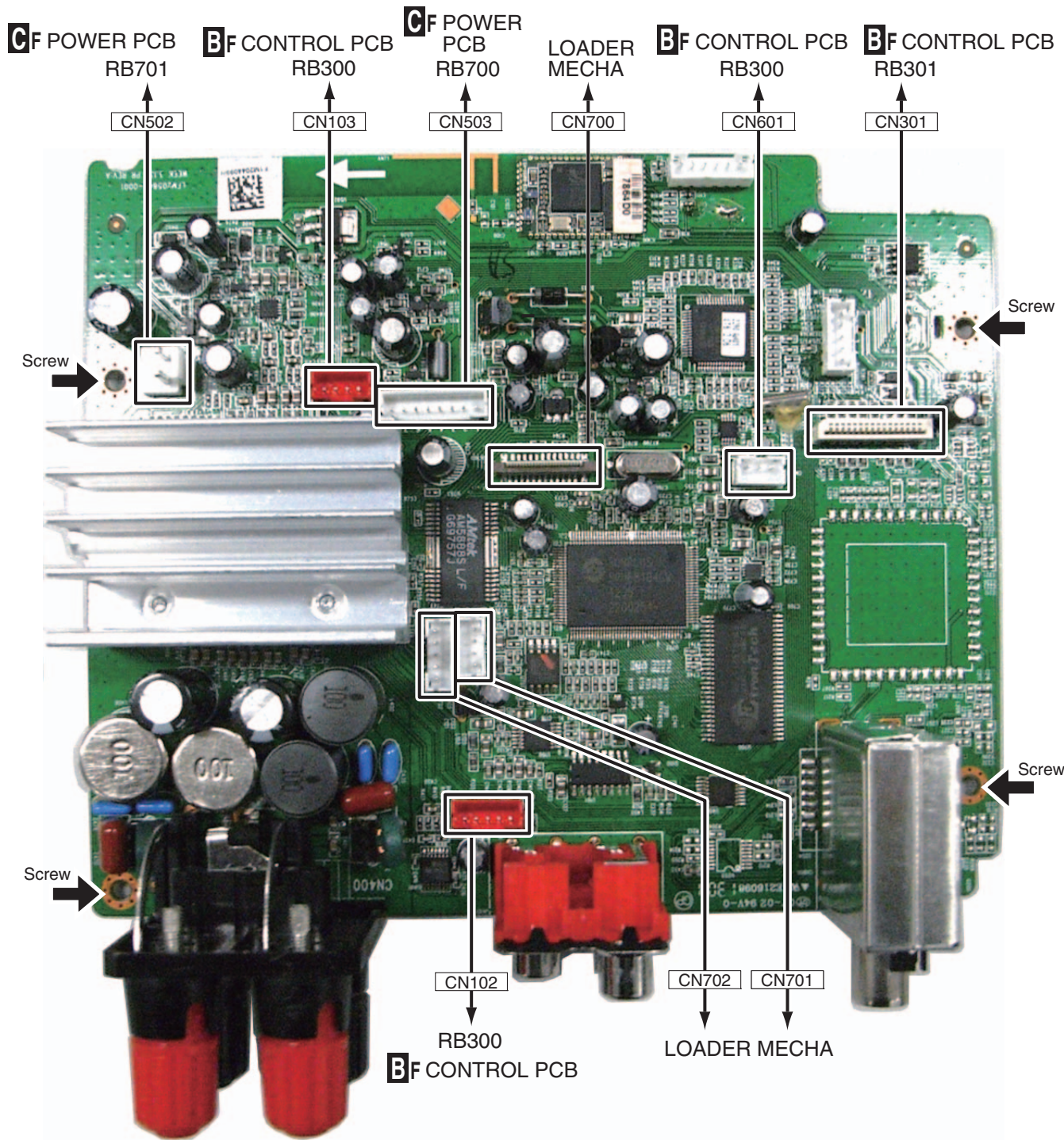
[Remarks]

The destination and AM Frequency Step settings are set to the appropriate settings for board of each region before shipment.
 It is setting needlessness fundamentally at the time of board exchange.
 When there should be fault, setting change is possible in the above-mentioned procedure.

5 6 7 8

4. DISASSEMBLY

Refer to the picture below about disassembly and wiring.



5. EACH SETTING AND ADJUSTMENT

5.1 HOW TO UPDATE SOFTWARE

- A If the software is not the latest version when replacing SERVICE MAIN PCB, update the software to the latest version.
Software can be updated via USB memory device.

[Procedure via USB]
Update CD module software

1. Copy [HM51_7GE_CD.bin] file to root directory of USB memory.
2. Press STANDBY/ON key on the main unit to turn on.
3. Press USB key on RCU to select USB/IPOD function.
4. Insert USB memory which has a update file.
5. [CD UPDATE] appears in main display.
6. Press PLAY/PAUSE key on main unit to start updating.
7. [UPDATING] is displayed on main display during updating.
8. If update is completed, [COMPLETE] appears on main display.
 (It takes approx. 1 minute or less.)
9. HM51 turns off automatically.
10. Remove USB memory.

Update Main module software

1. Copy the update file to root directory of USB memory.
 The file name is "HM51_MCU.hex" for X-HM51-S,-W/XC-HM51-K,-S
 or "HM51DAB_MCU.hex" for X-HM51DAB-K/XC-HM51DAB-K.
 (If you use the same USB memory, it is necessary that [HM51_7GE_CD.bin] is deleted.)
2. Press STANDBY/ON key to turn on.
3. Press USB key on RCU to select USB/IPOD function.
4. Insert USB memory which has a update file.
5. [MCU UPDATE] appears in main display.
6. Press PLAY/PAUSE key on main unit to start updating.
7. [UPDATING] is displayed on main display.
8. No message is displayed on main display, but updating is continued for a while.
 (It takes approx. 1 minute or less.)
9. Please check that the power is turned on by pressing the STNDBY / ON key.
 Update is not completed if the power is turned on.
 So please wait a moment and press STANDBY/ON key again.
10. Press STANDBY/ON key to turn off, and remove USB memory.

- D
*Do not remove AC cord during updating.
*Do not press STANDBY/ON key during updating.
 The aboves might break down HM51.
*About confirmation of version, please refer to "3.1 CONFIRM SOFTWARE VERSION AND DESTINATION INFORMATION".

5.2 DEFAULT SETTING

1. Default Setting

Step

1. In working status. (There are two ways to set default setting)

a. Press the panel key "STOP + POWER", keep pressing both keys at the same time for 5secs at CD source when tray is opened.
System enters default setting.

b. Press the remote control button "STOP, 0, 0 and 0" in order at CD source when tray is opened.

System enters default setting.

Display

DEFULT

2. Once default setting is completed, then automatically reboot the system and enter standby mode.

Note

Region setting does not change even if this operation is conducted.

2. TUNER Default Frequency List (Initial)

Destination			X-HM51, XC-HM51 /SYXE8	X-HM51DAB, XC-HM51DAB /VXE8	X-HM51 /AXQ5
BAND WIDTH	FM	Width	87.50 - 108.00MHz	87.50 - 108.00MHz	87.50 - 108.00MHz
		Step	50k	50k	50k
		ST/MONO	ST	ST	ST
	AM	Width	522 - 1620kHz		530 - 1710kHz
		Step	9k		9k
	DAB	Width ST/MO		BAND3	
PRESET FREQUENCY	FM (MHz)		(MHz)	(MHz)	(MHz)
	1		87.50	87.50	87.50
	2		90.00	90.00	90.00
	3		98.00	98.00	98.00
	4		106.00	106.00	106.00
	5		108.00	108.00	108.00
	DAB				
				Clear database	

3. Audio Default Setting

VOL	0
EQ	Flat
P.BASS	OFF
BASS/TREBLE	BASS +1dB TREBLE 0dB
AM Noise Cut Mode	Mode1

4. DIMMER Default Setting

DIMMER OFF

5. Source Default Setting

CD

6. Timer Clock Default setting

Clear timer set

Clear clock set

There is the clock test mode ,showing like "DDHHMM" :

Press the remote control button "STOP, 2, 2 and 2" in order at CD source when tray is opened.

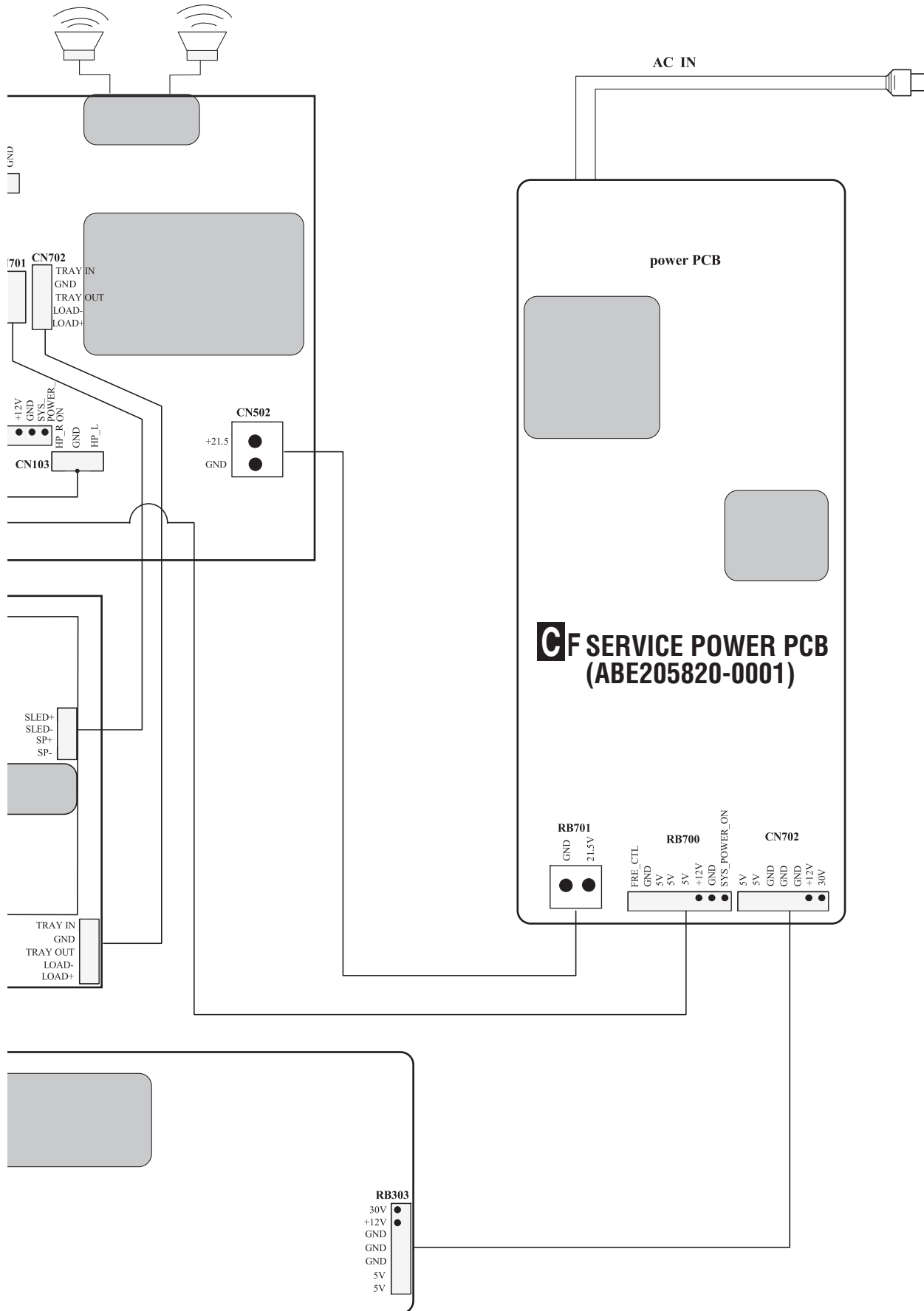
7. MPEG Default Setting

Clear CD/USB playback position. (Clear resume playback position).

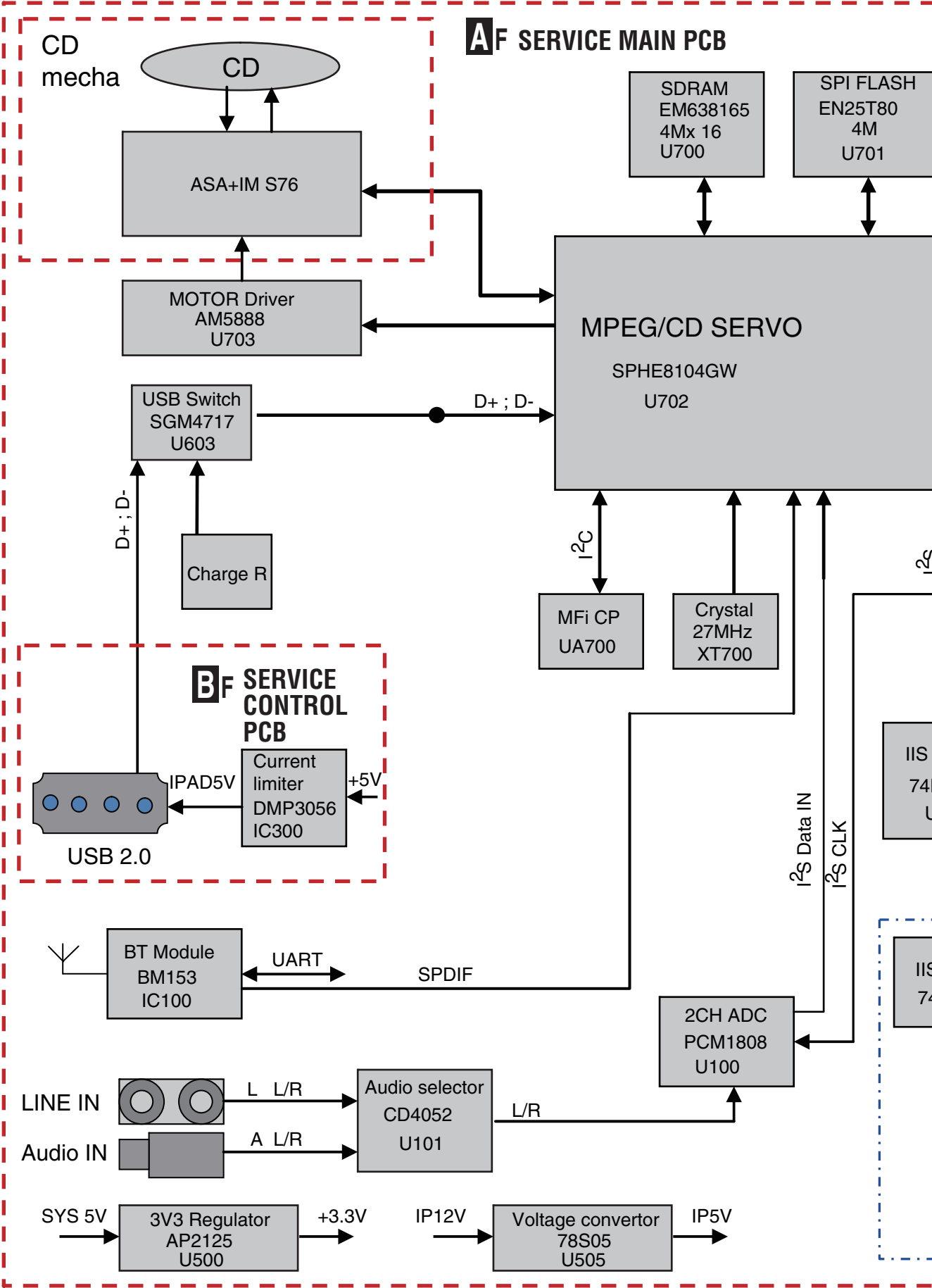
6.1 OVERALL CONNECTION DIAGRAM

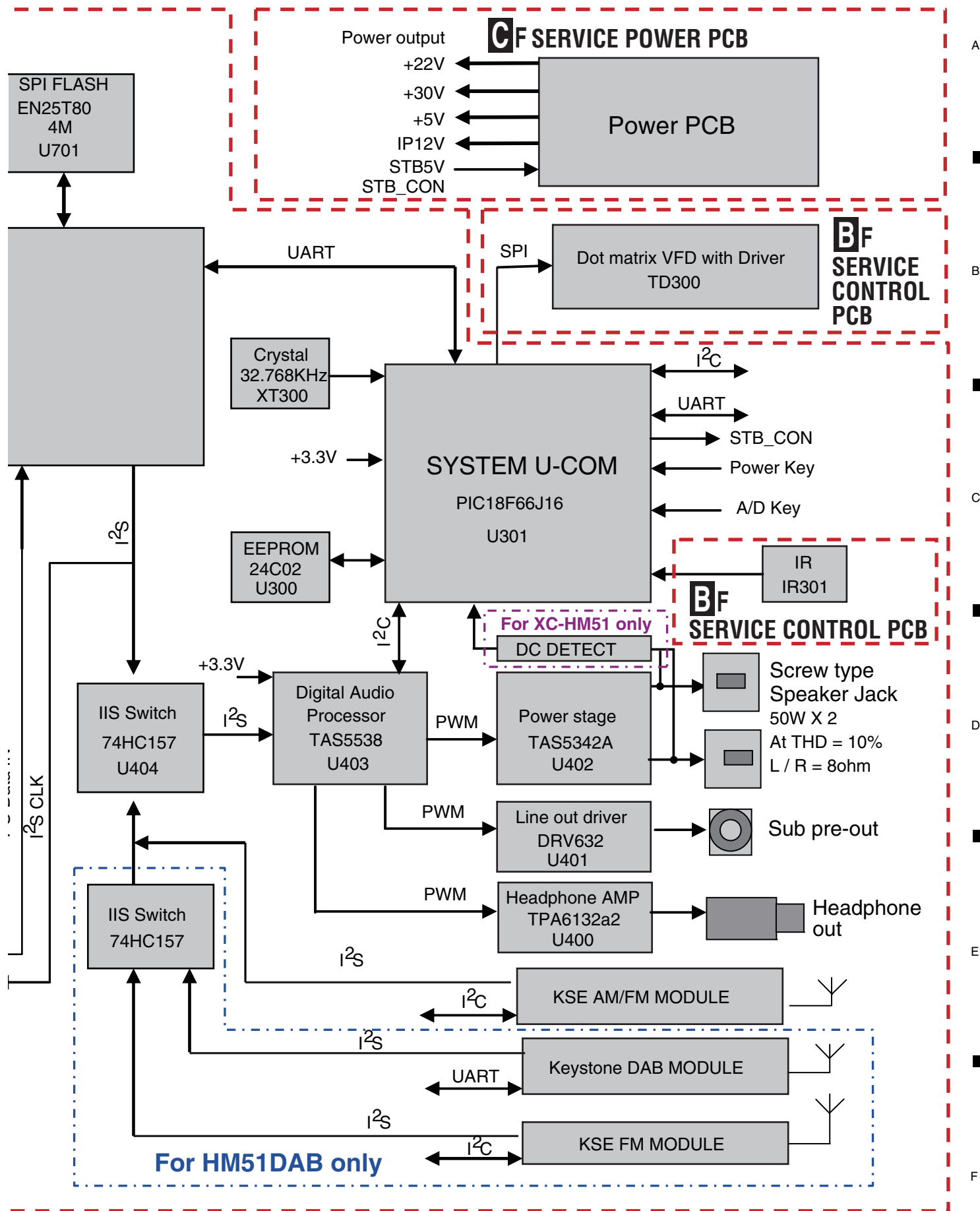
: ABE20584A-0002)





6.2 BLOCK DIAGRAM



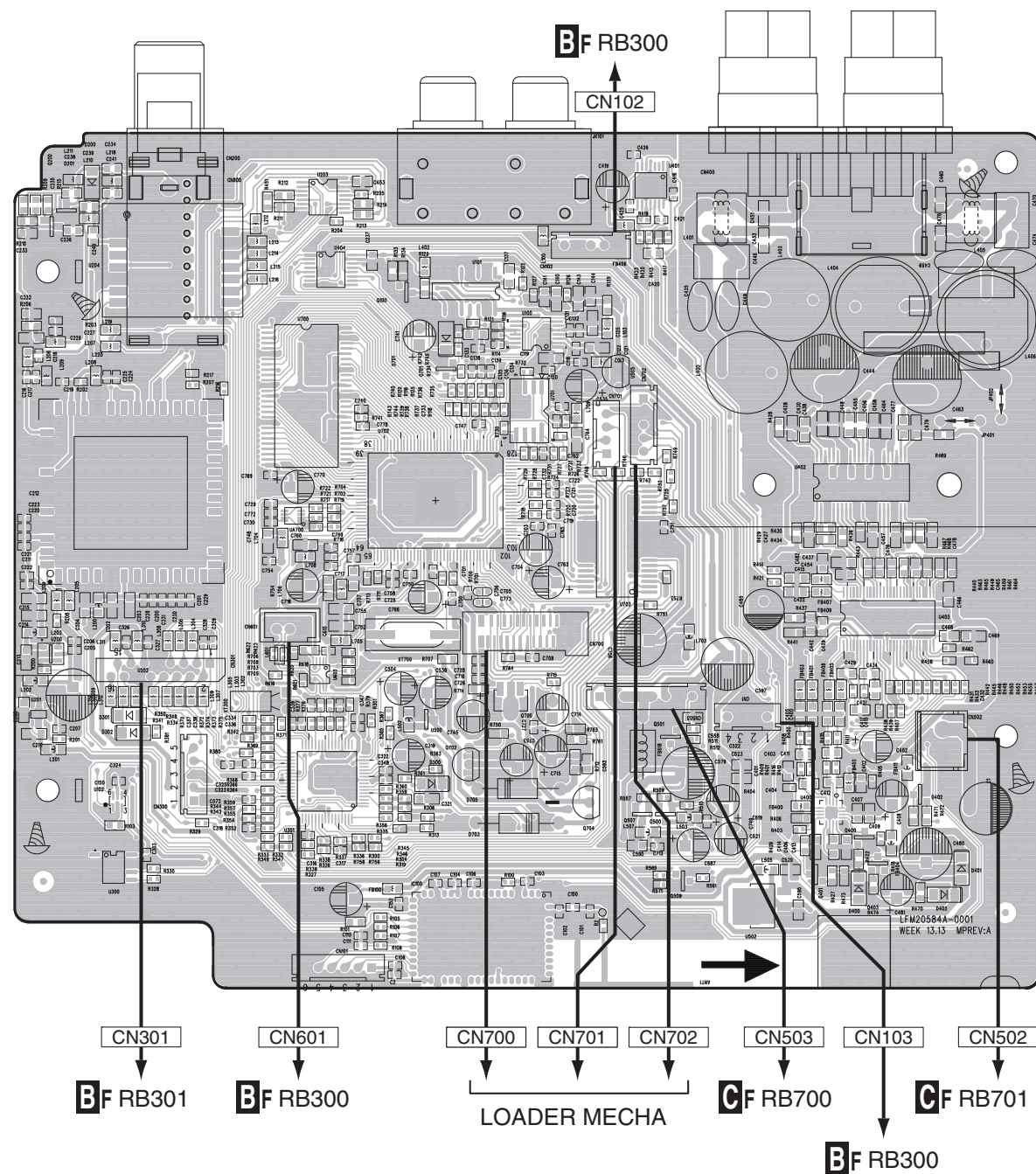
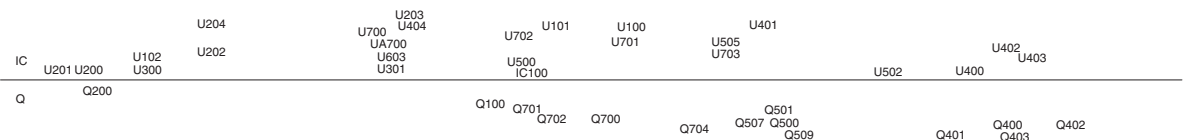


7. PCB CONNECTION DIAGRAM

7.1 SERVICE MAIN PCB

SIDE A

A F SERVICE MAIN PCB

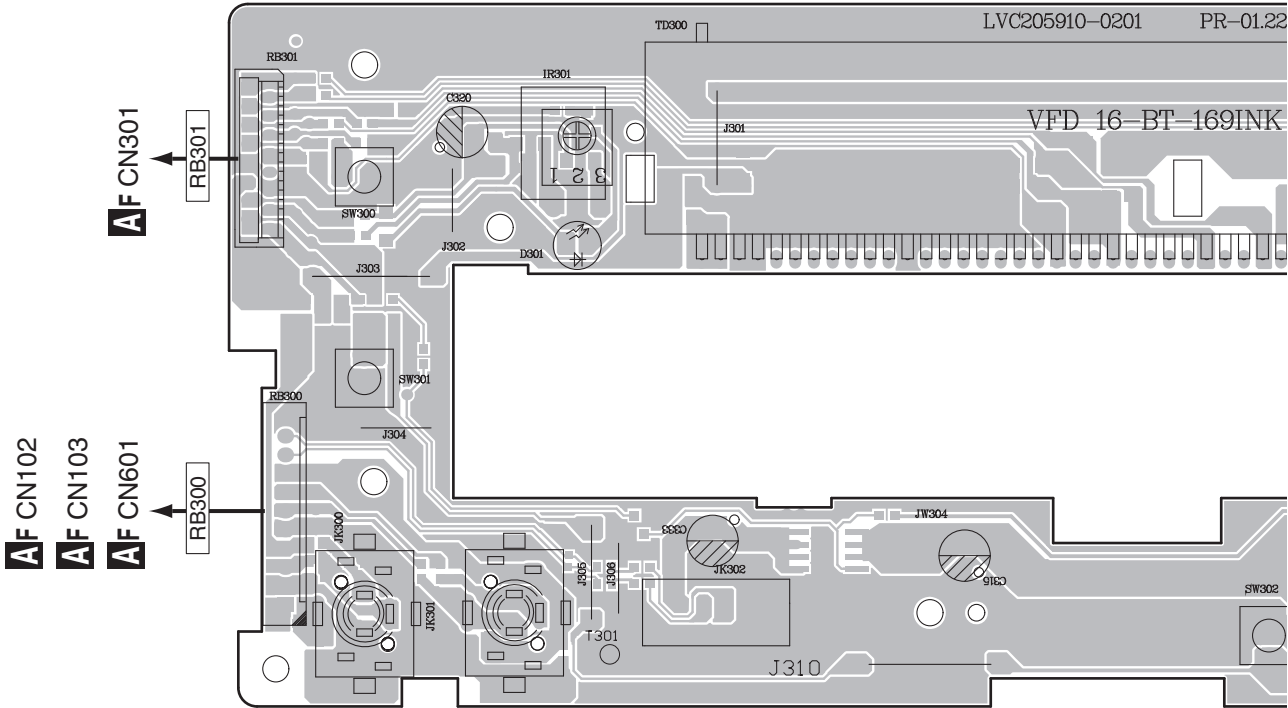


A F

7.2 SERVICE CONTROL PCB

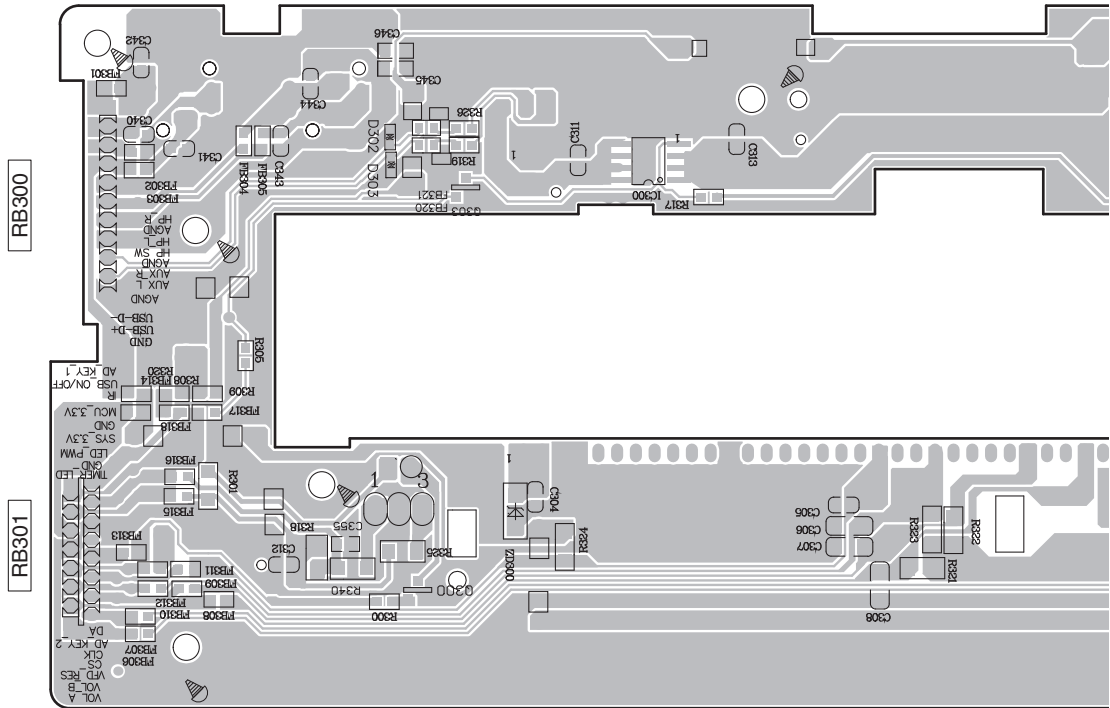
SIDE A

BF SERVICE CONTROL PCB



SIDE B

BF SERVICE CONTROL PCB



Q Q300 Q303 IC IC300

SIDE A

A

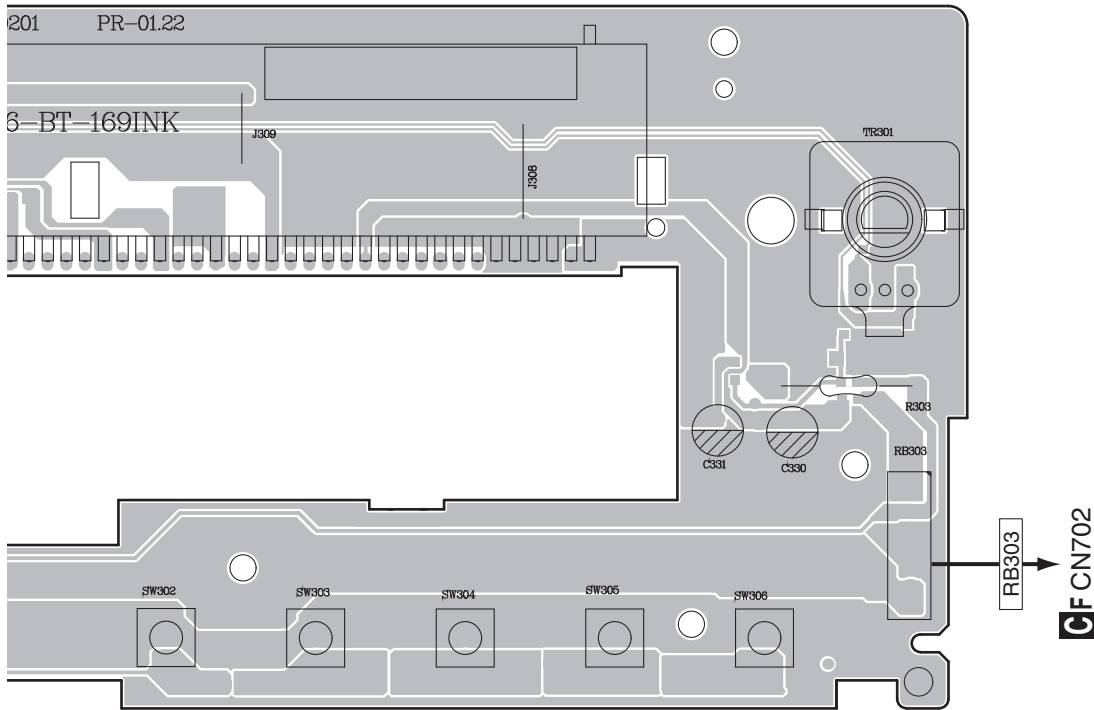
B

C

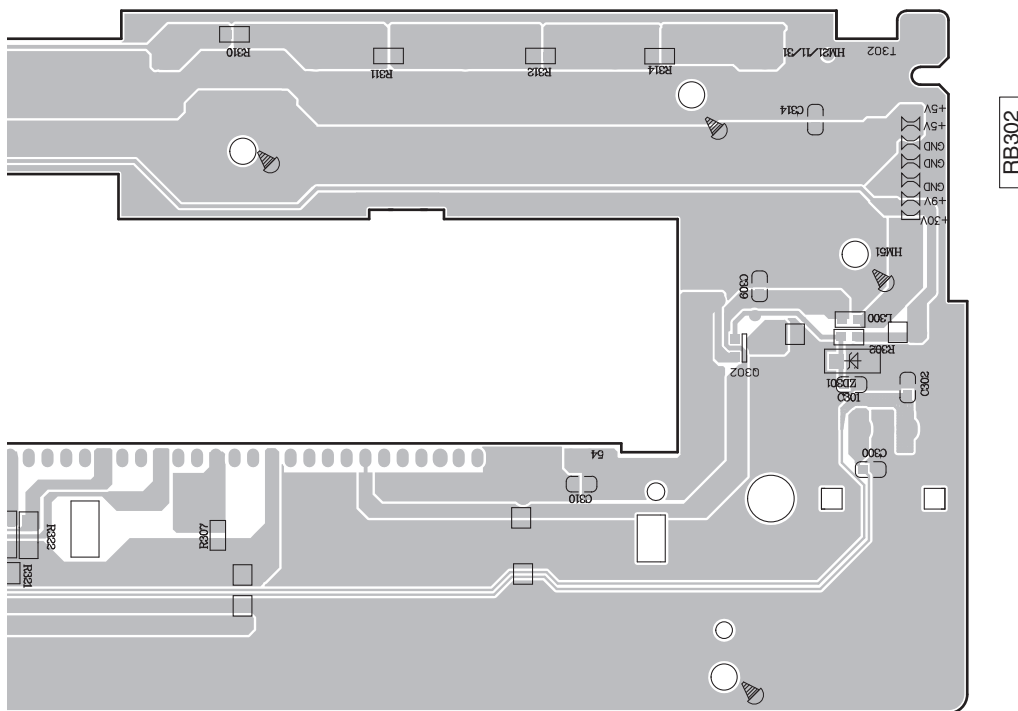
D

E

F



SIDE B

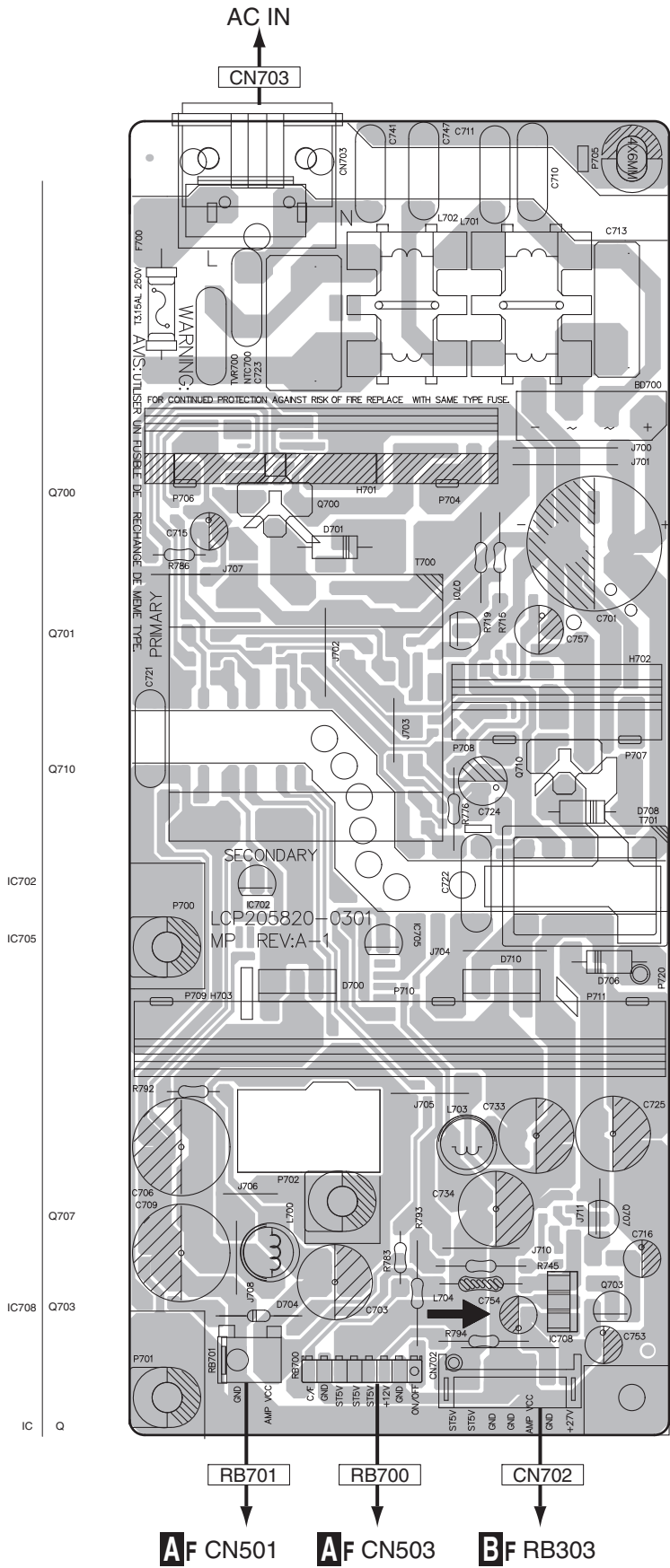


Q302

7.3 SERVICE POWER PCB

SIDE A

CF SERVICE POWER PCB



CF

CF SERVICE POWER PCB

SIDE B

A

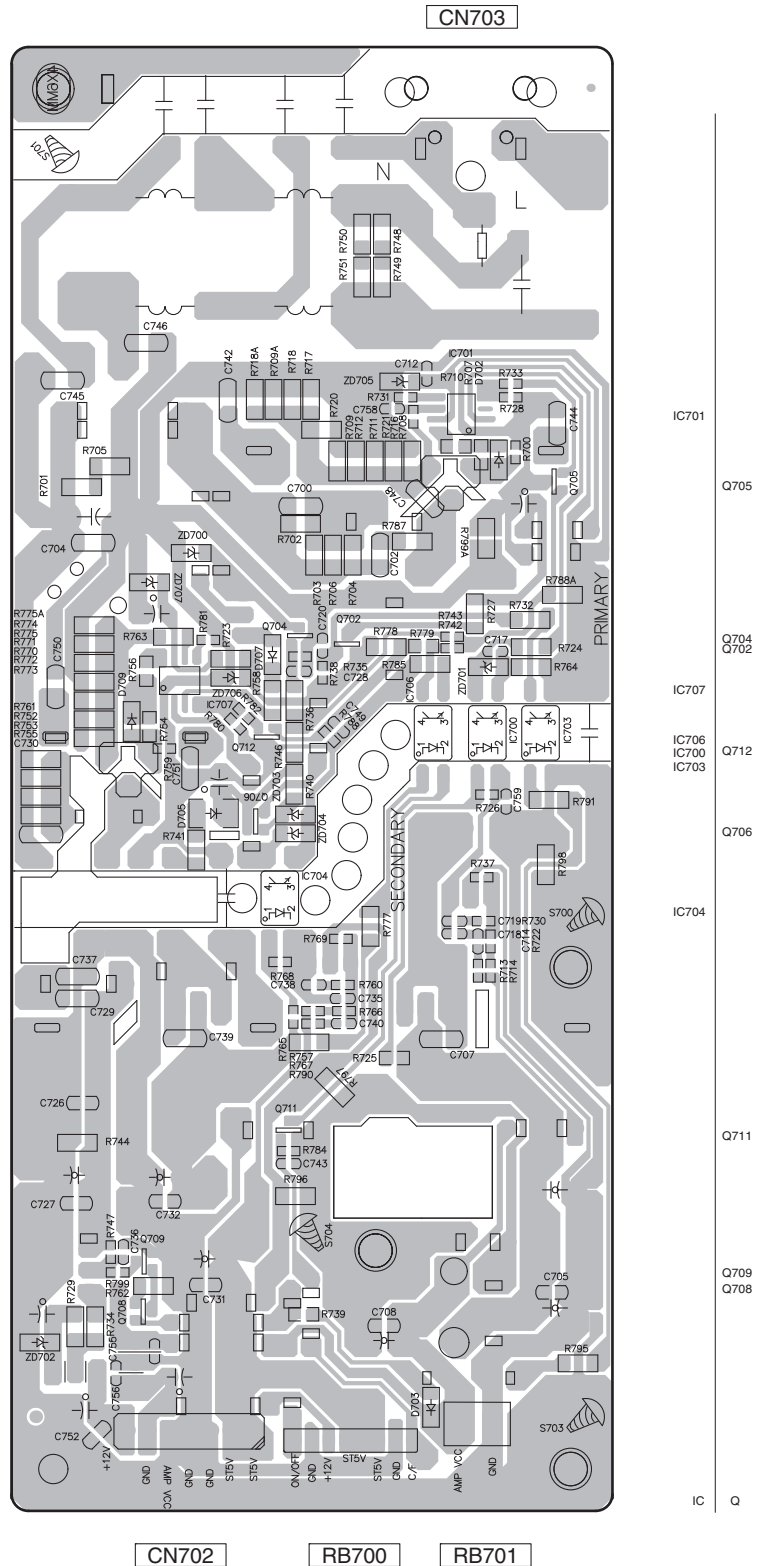
B

C

D

E

F



CN702

RB700

RB701

X-HM51-K