PSG1109004SE

Service Manual

Compact Stereo System

Supplement

Model No. SA-AKX12EB
SA-AKX12EG
SA-AKX12GN
SA-AKX12PH
SA-AKX12PN
SA-AKX12PR

Product Color: (K)...Black Type

Subject : Block Diagram / Schematic Diagram / Printed Circuit Board / Exploded View / Replacement Parts List (Updates)

Please file and use this supplement manual together with the service manual for
Model No. SA-AKX12EB/EG/GN-K Order No. PSG1103044CE
Model No. SA-AKX12PH/PN-K Order No. PSG1102024CE
Model No. SA-AKX12PR-K Order No. PSG1104021AE

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

TABLE OF CONTENTS

Panasonic®

1 Notes

Background:

- For improvement of quality and performance.

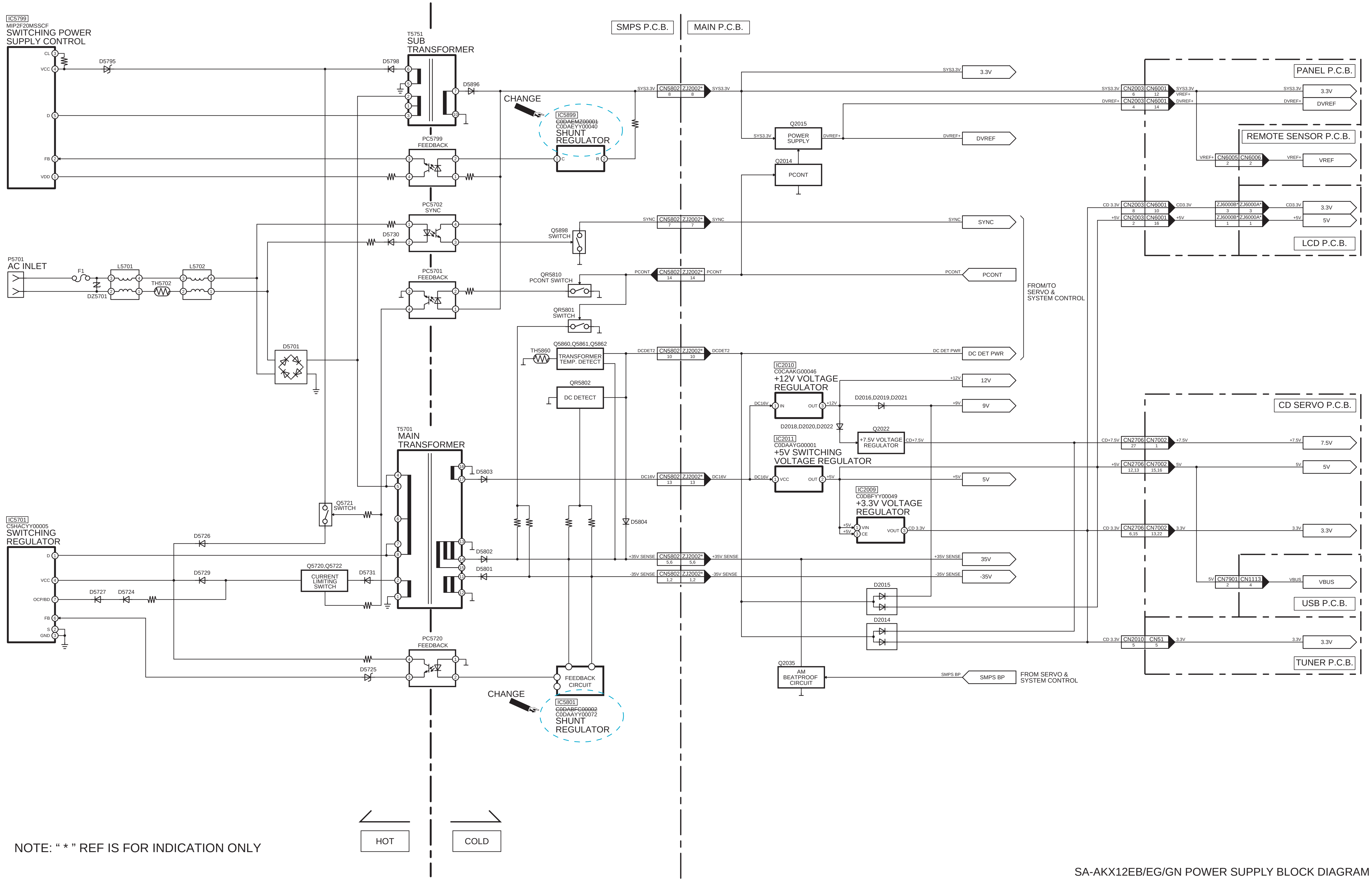
This supplement includes additional and revised contents to the original service manual for below sections:-

1. Block Diagram
2. Schematic Diagram
3. Printed Circuit Board
4. Exploded View
5. Mechanical Replacement Parts List
6. Electrical Replacement Parts List

2 Block Diagram

2.1. Power Supply Block Diagram (For SA-AKX12EB/EG/GN-K)

With reference to original service manual (section 14.3.) on page 75 for Model No. SA-AKX12EB/EG/GN-K



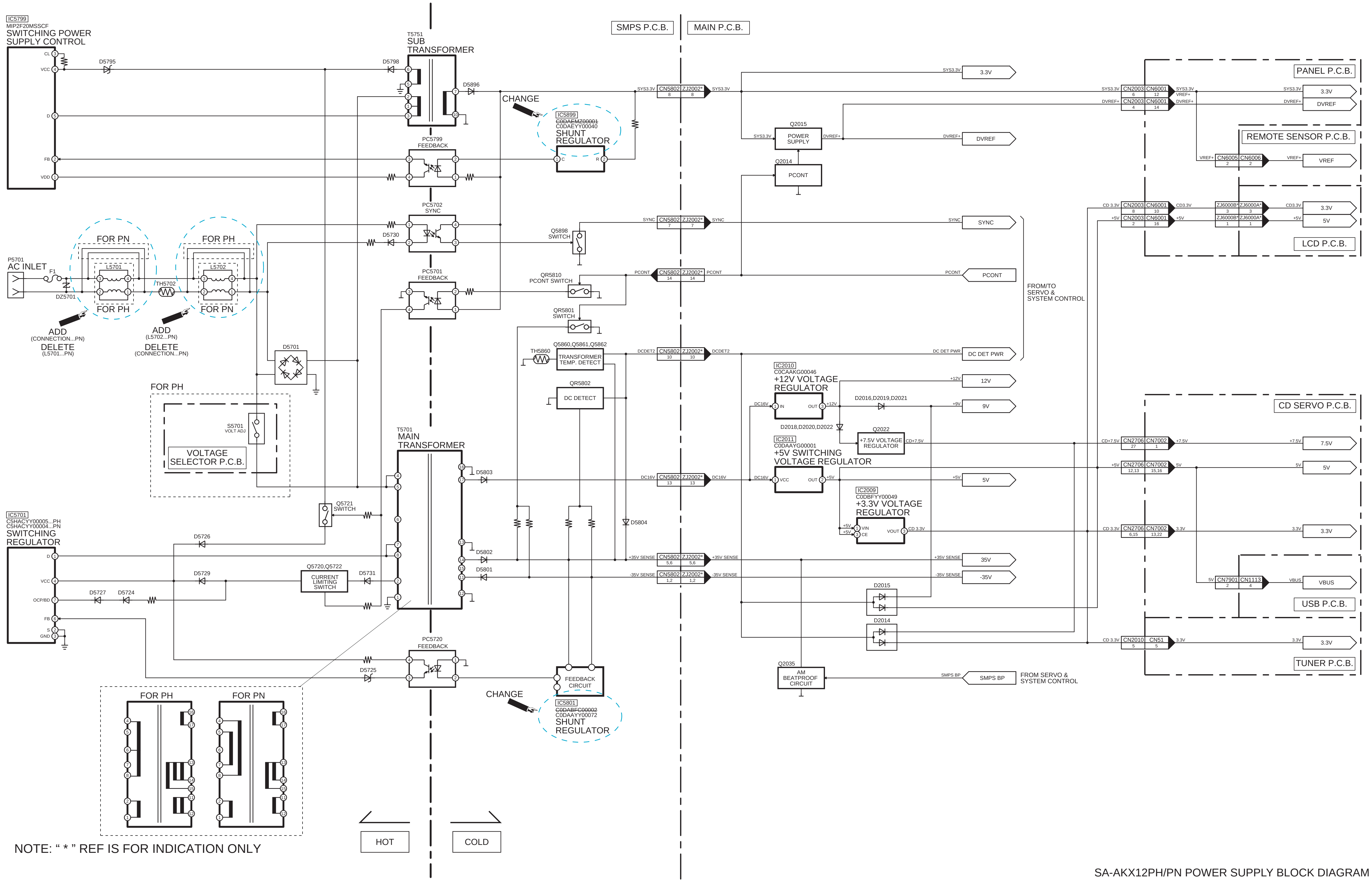
NOTE: “ * ” REF IS FOR INDICATION ONLY

SA-AKX12EB/EG/GN POWER SUPPLY BLOCK DIAGRAM

2.2. Power Supply Block Diagram (For SA-AKX12PH/PN-K, SA-AKX12PR-K)

With reference to original service manual (section 14.3.) on page 75 for Model No. SA-AKX12PH/PN-K

With reference to SA-AKX12PH/PN-K service manual (section 14.3.) on page 75 for Model No. SA-AKX12PR-K



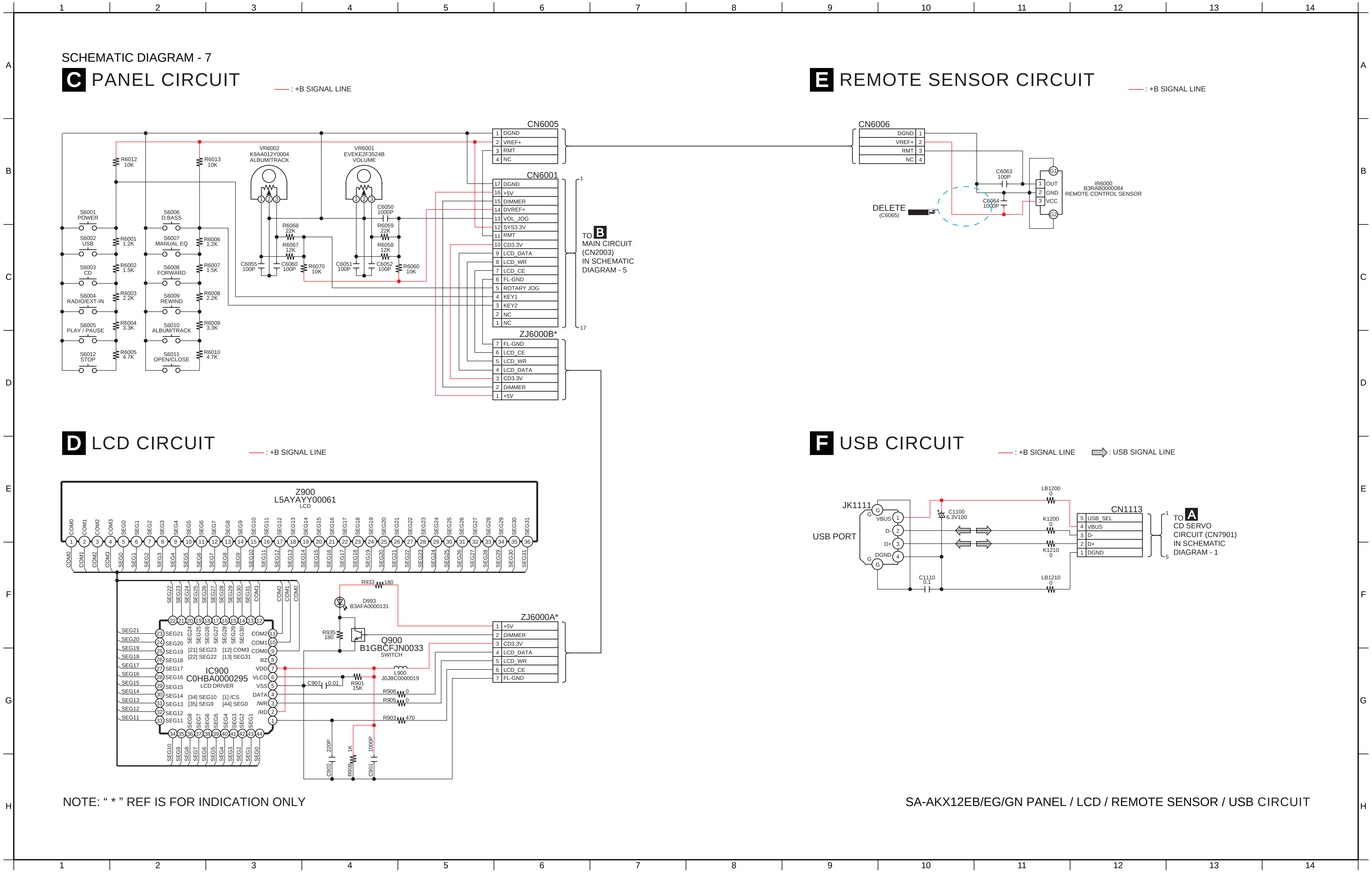
NOTE: “ * ” REF IS FOR INDICATION ONLY

SA-AKX12PH/PN POWER SUPPLY BLOCK DIAGRAM

3 Schematic Diagram

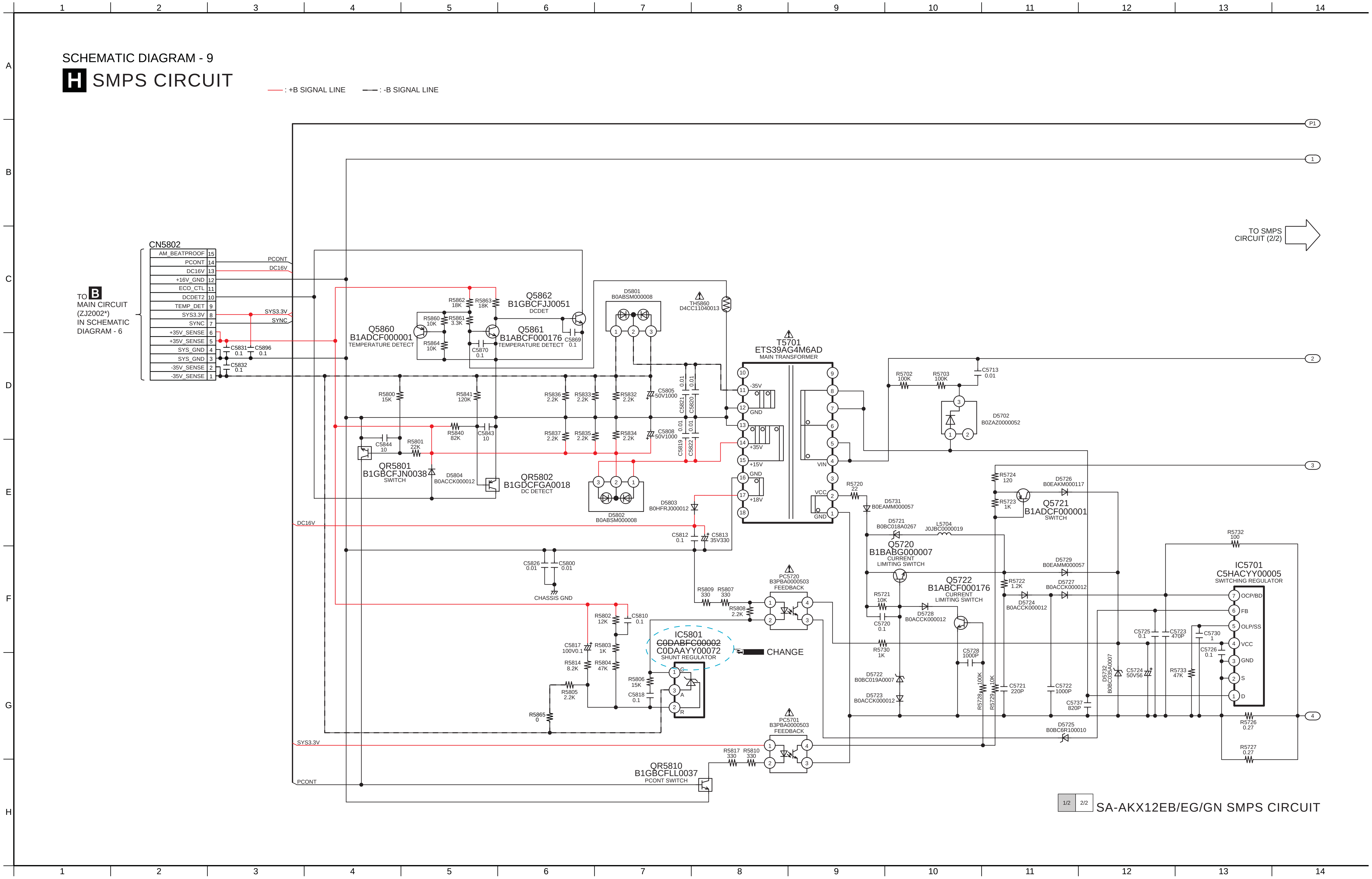
3.1. Panel, LCD, Remote Sensor & USB Circuit (For SA-AKX12EB/EG/GN-K)

With reference to original service manual (section 16.4.) on page 85 for Model No. SA-AKX12EB/EG/GN-K



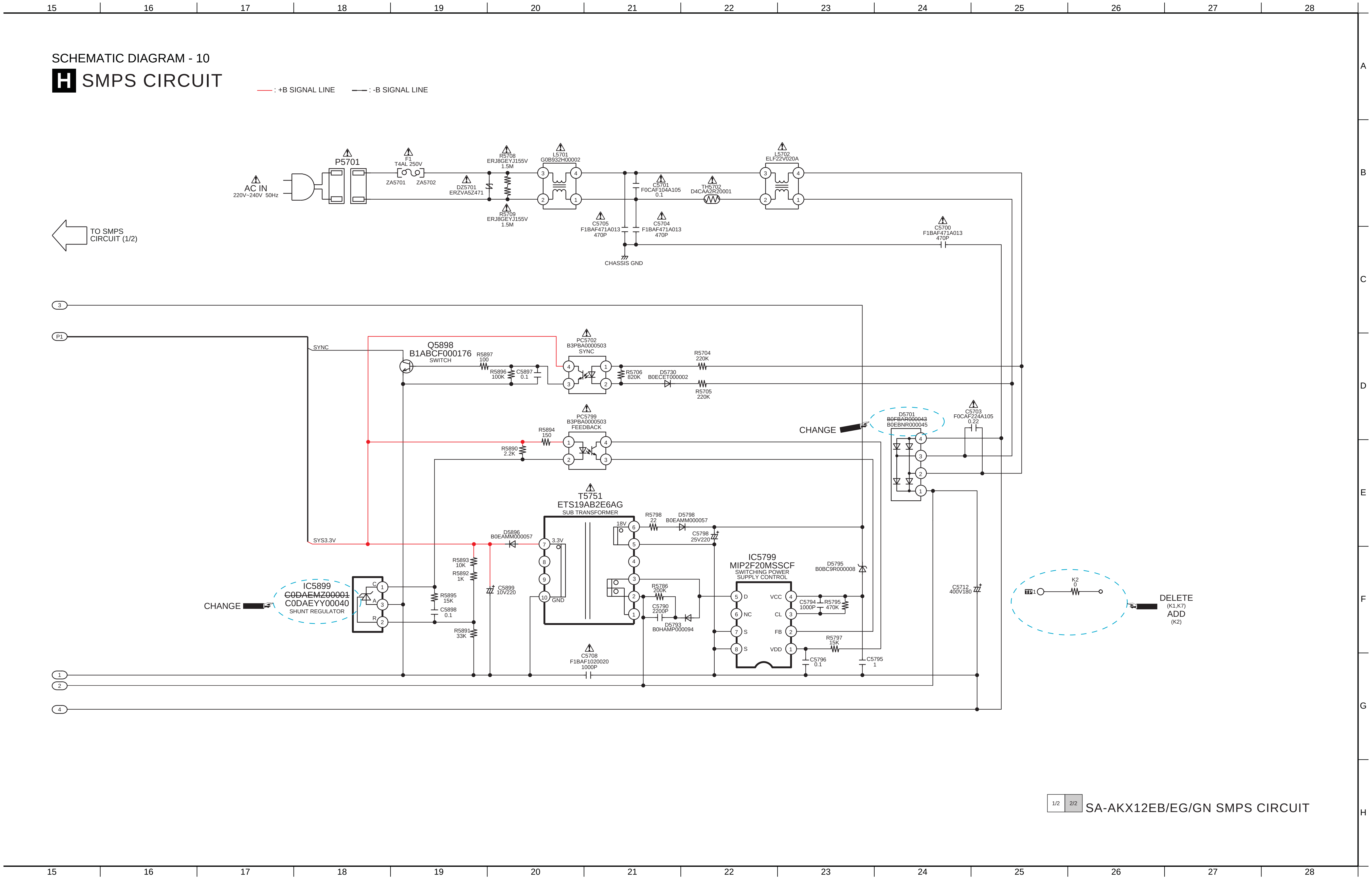
3.2. SMPS Circuit (For SA-AKX12EB/EG/GN-K)

With reference to original service manual (section 16.6.) on page 87-88 for Model No. SA-AKX12EB/EG/GN-K



SCHEMATIC DIAGRAM - 10

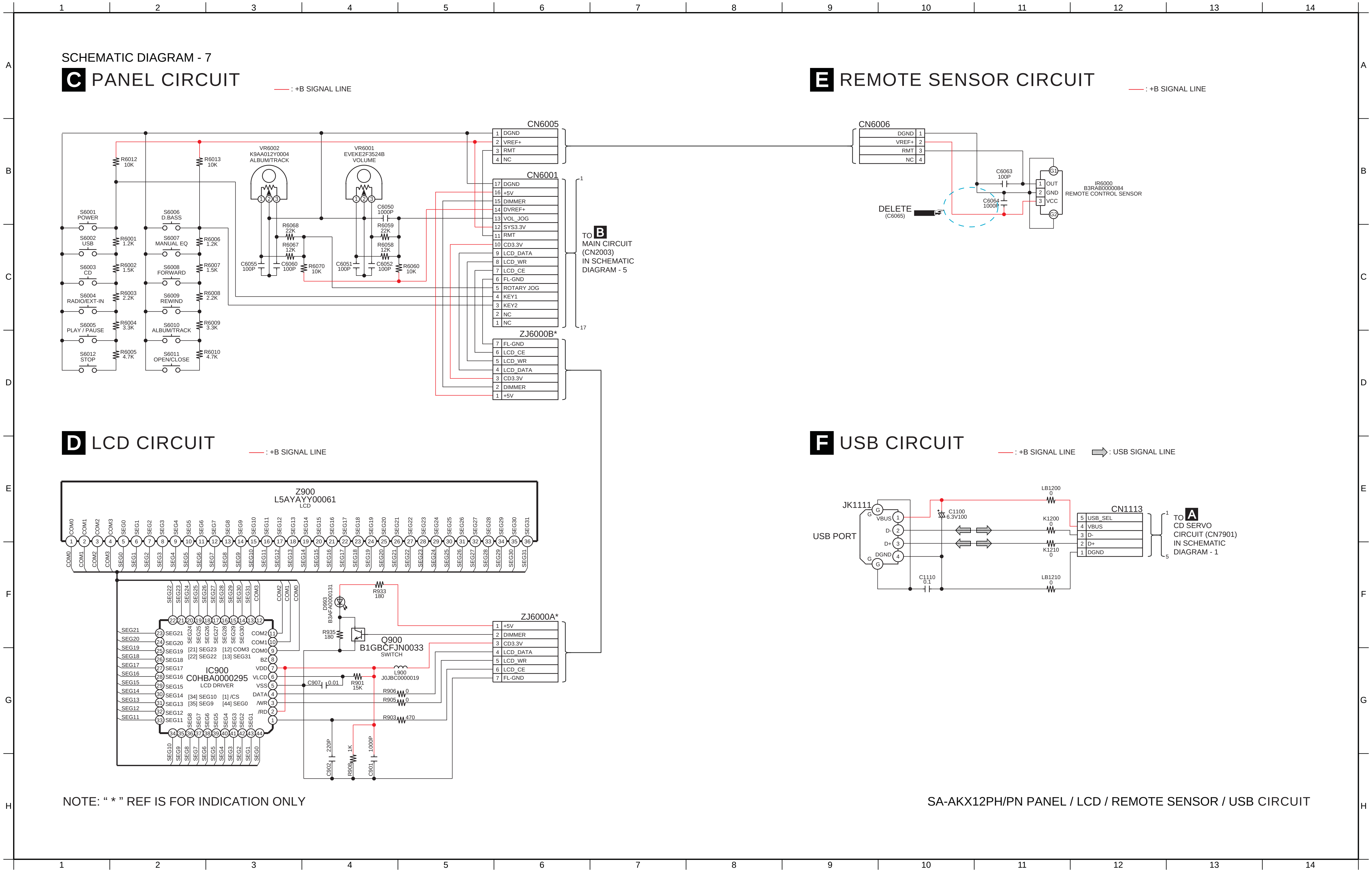
H SMPS CIRCUIT



1/2 2/2 SA-AKX12EB/EG/GN SMPS CIRCUIT

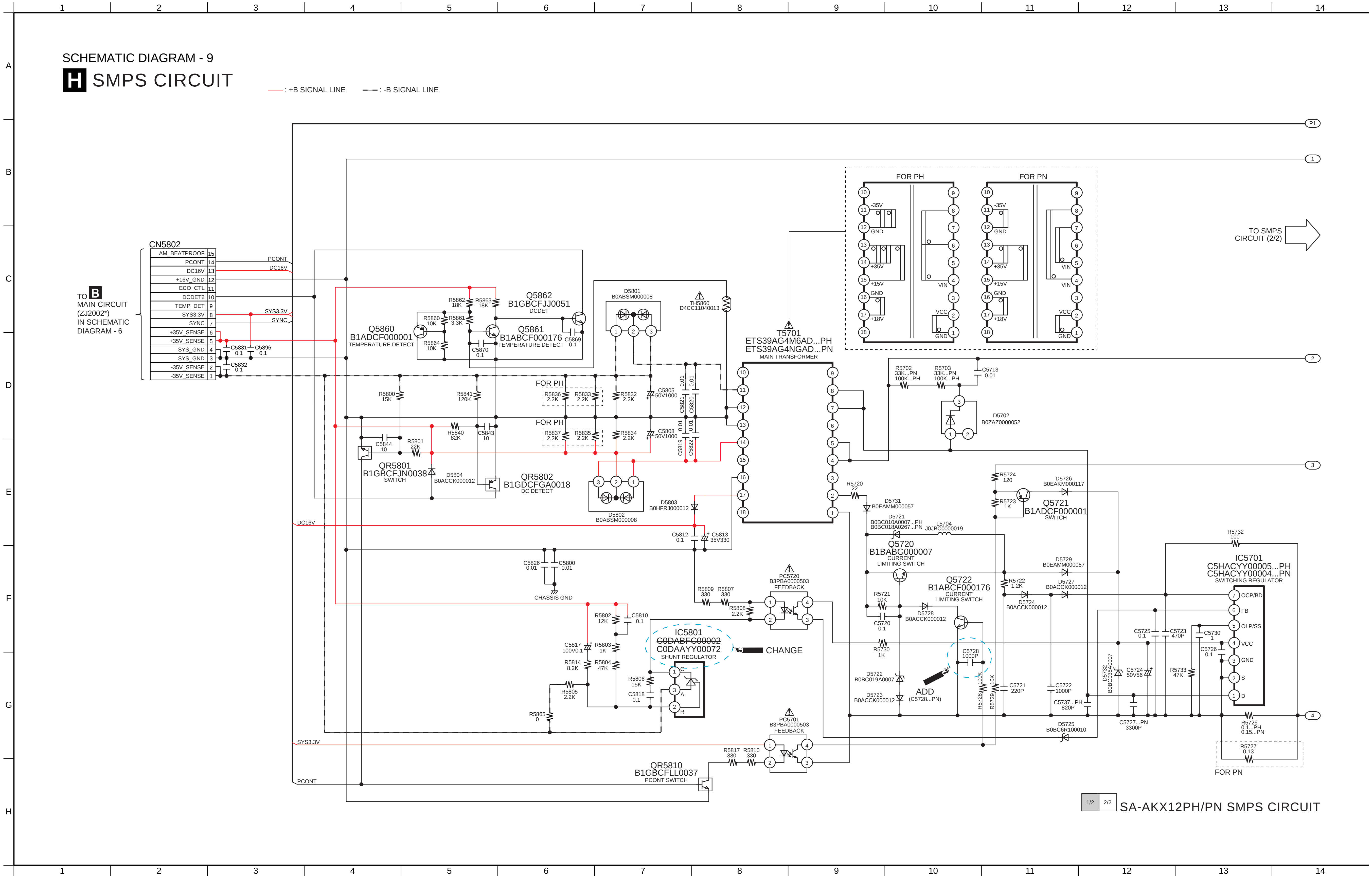
3.3. Panel, LCD, Remote Sensor & USB Circuit (For SA-AKX12PH/PN-K, SA-AKX12PR-K)

With reference to original service manual (section 16.4.) on page 85 for Model No. SA-AKX12PH/PN-K
With reference to SA-AKX12PH/PN-K service manual (section 16.4.) on page 85 for Model No. SA-AKX12PR-K



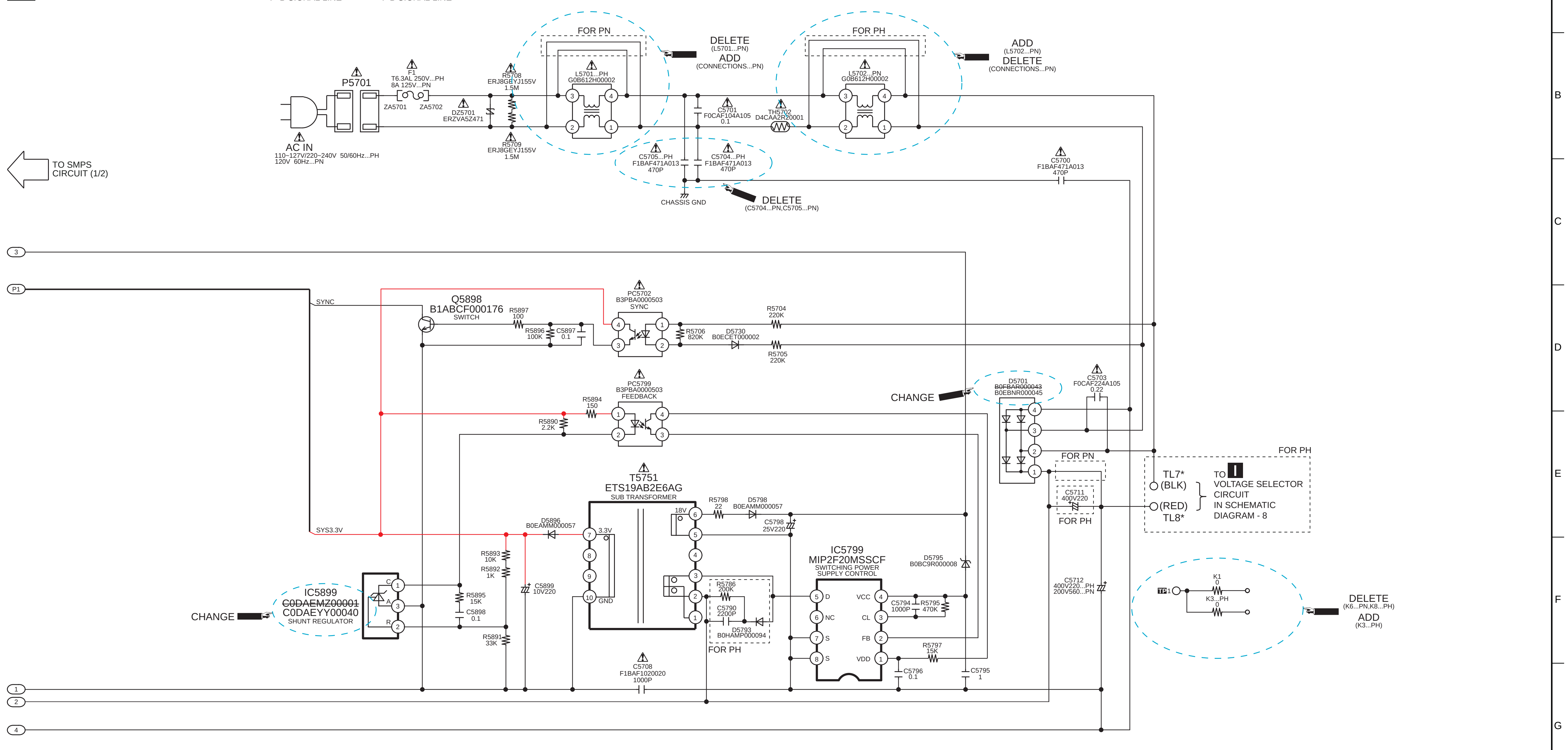
3.4. SMPS Circuit (For SA-AKX12PH/PN-K, SA-AKX12PR-K)

With reference to original service manual (section 16.6.) on page 87-88 for Model No. SA-AKX12PH/PN-K
With reference to SA-AKX12PH/PN-K service manual (section 16.6.) on page 87-88 for Model No. SA-AKX12PR-K



SCHEMATIC DIAGRAM - 10

H SMPS CIRCUIT



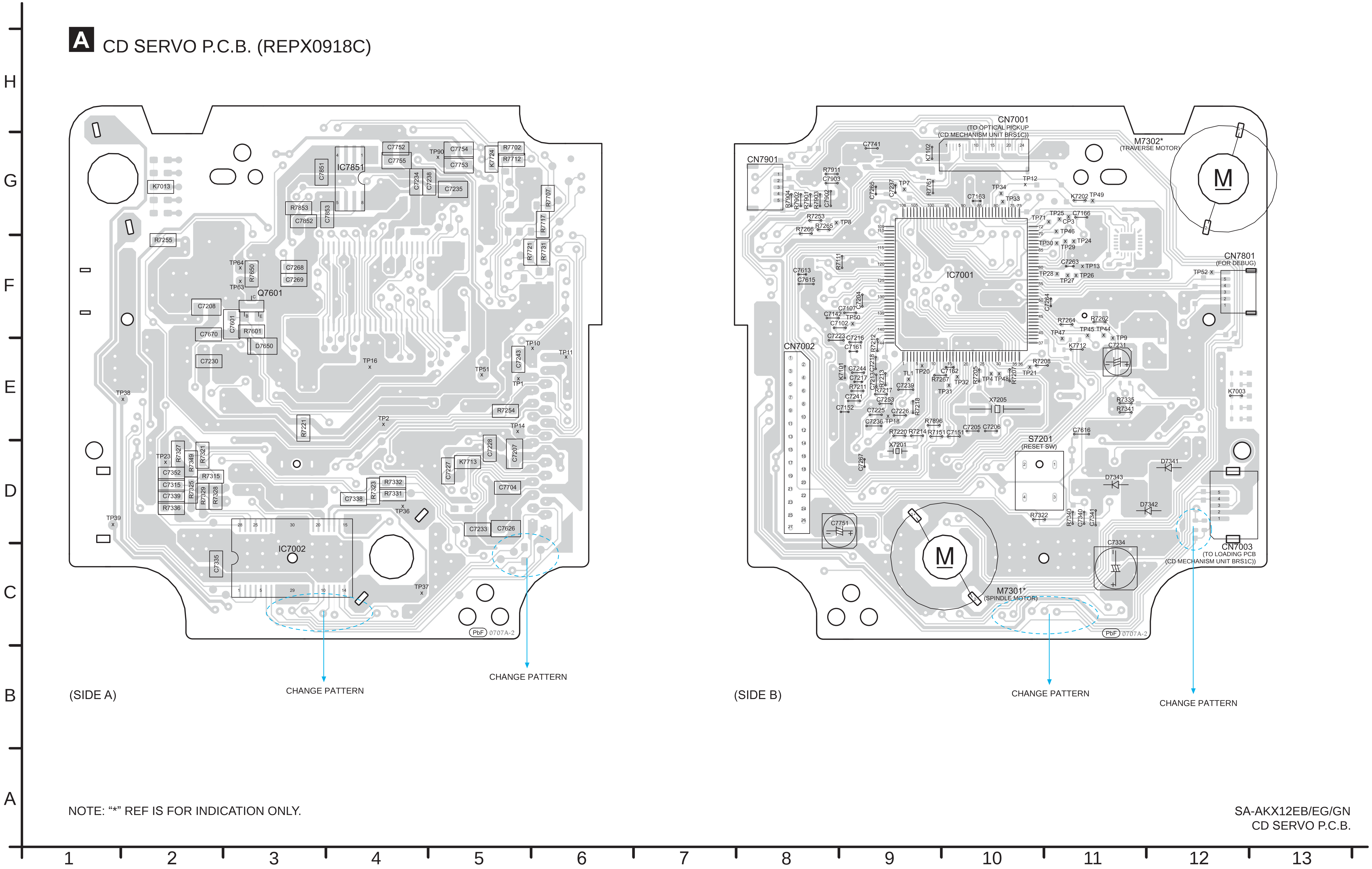
NOTE: " * " REF IS FOR INDICATION ONLY

1/2 2/2 SA-AKX12PH/PN SMPS CIRCUIT

4 Printed Circuit Board

4.1. CD Servo P.C.B. (For SA-AKX12EB/EG/GN-K)

With reference to original service manual (section 17.1.) on page 89 for Model No. SA-AKX12EB/EG/GN-K



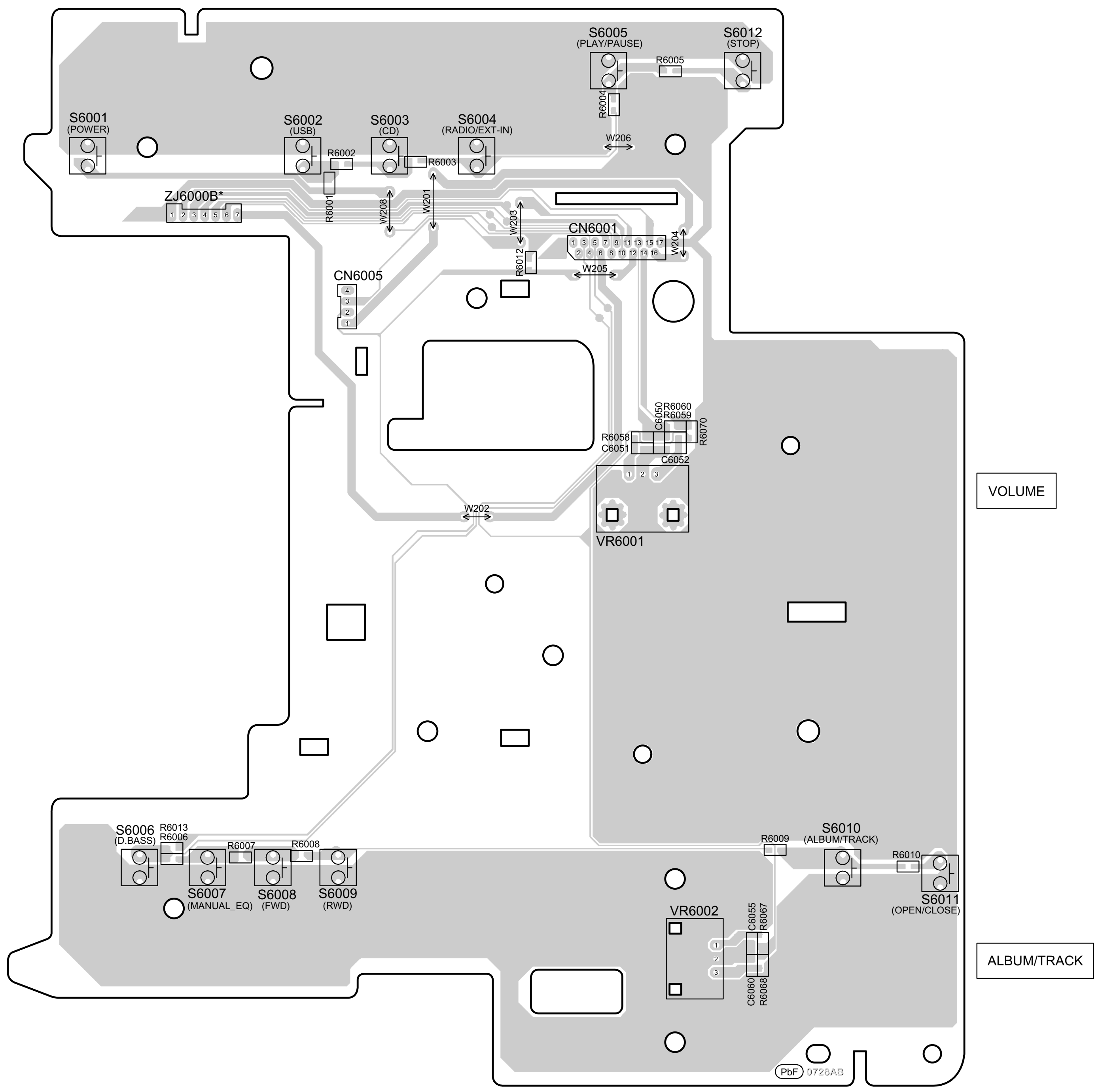
NOTE: “*” REF IS FOR INDICATION ONLY.

SA-AKX12EB/EG/GN
CD SERVO P.C.B.

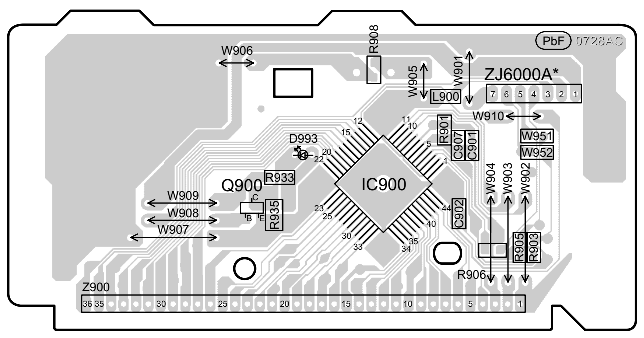
4.2. Panel, LCD, Remote Sensor & USB P.C.B. (For SA-AKX12EB/EG/GN-K)

With reference to original service manual (section 17.3.) on page 91 for Model No. SA-AKX12EB/EG/GN-K

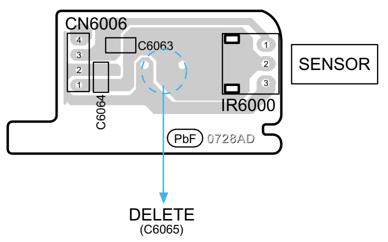
C PANEL P.C.B. (REPX0892CB...EB/EG)
(REPX0892DB...GN)



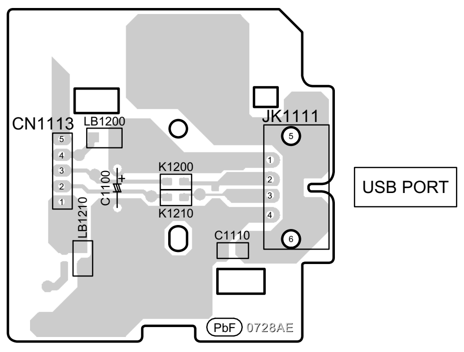
D LCD P.C.B. (REPX0892CB...EB/EG)
(REPX0892DB...GN)



E REMOTE SENSOR P.C.B. (REPX0892CD...EB/EG)
(REPX0892DD...GN)



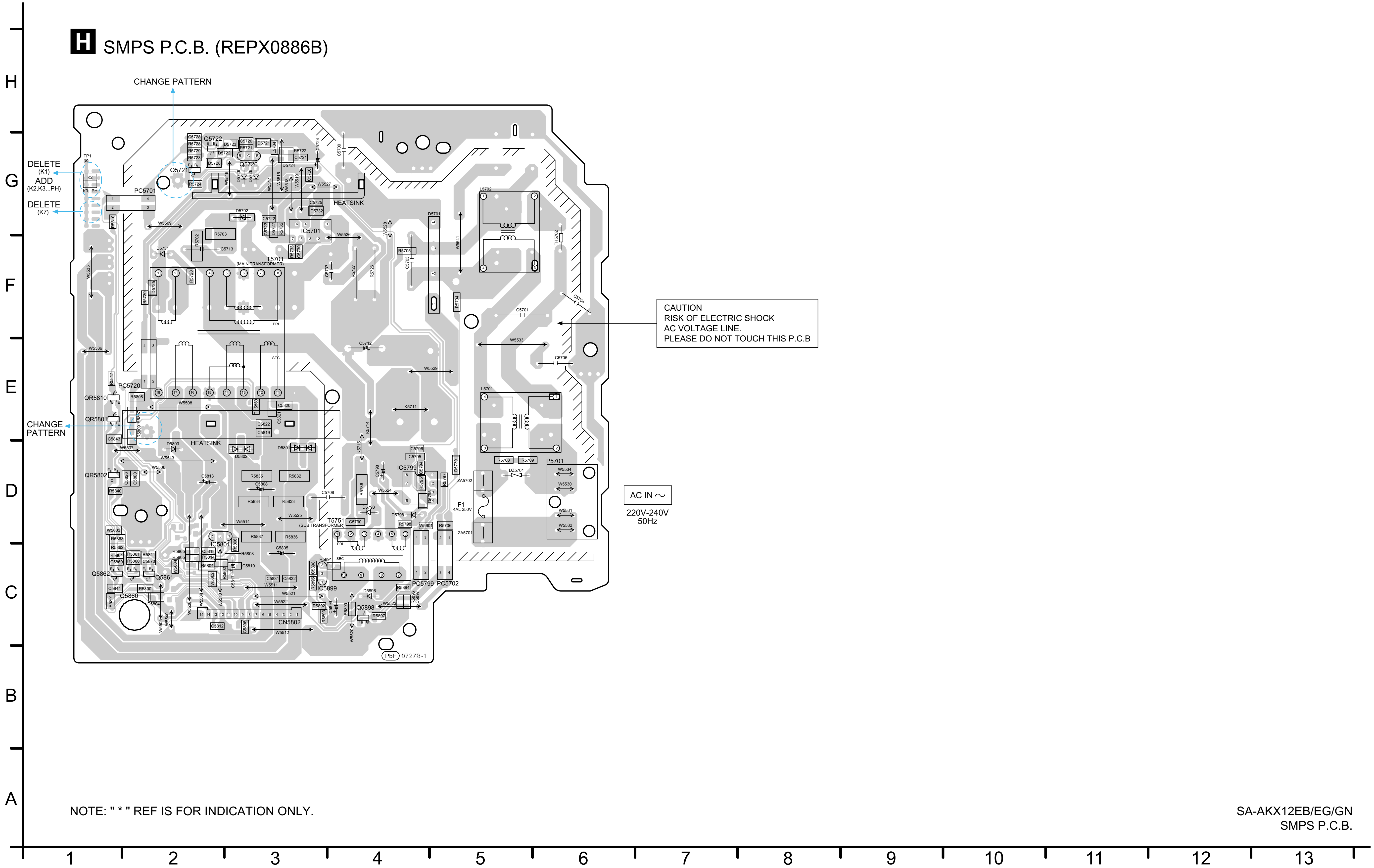
F USB P.C.B. (REPX0892CE...EB/EG)
(REPX0892DE...GN)



NOTE: " * " REF IS FOR INDICATION ONLY.

4.3. SMPS P.C.B. (For SA-AKX12EB/EG/GN-K)

With reference to original service manual (section 17.4.) on page 92 for Model No. SA-AKX12EB/EG/GN-K

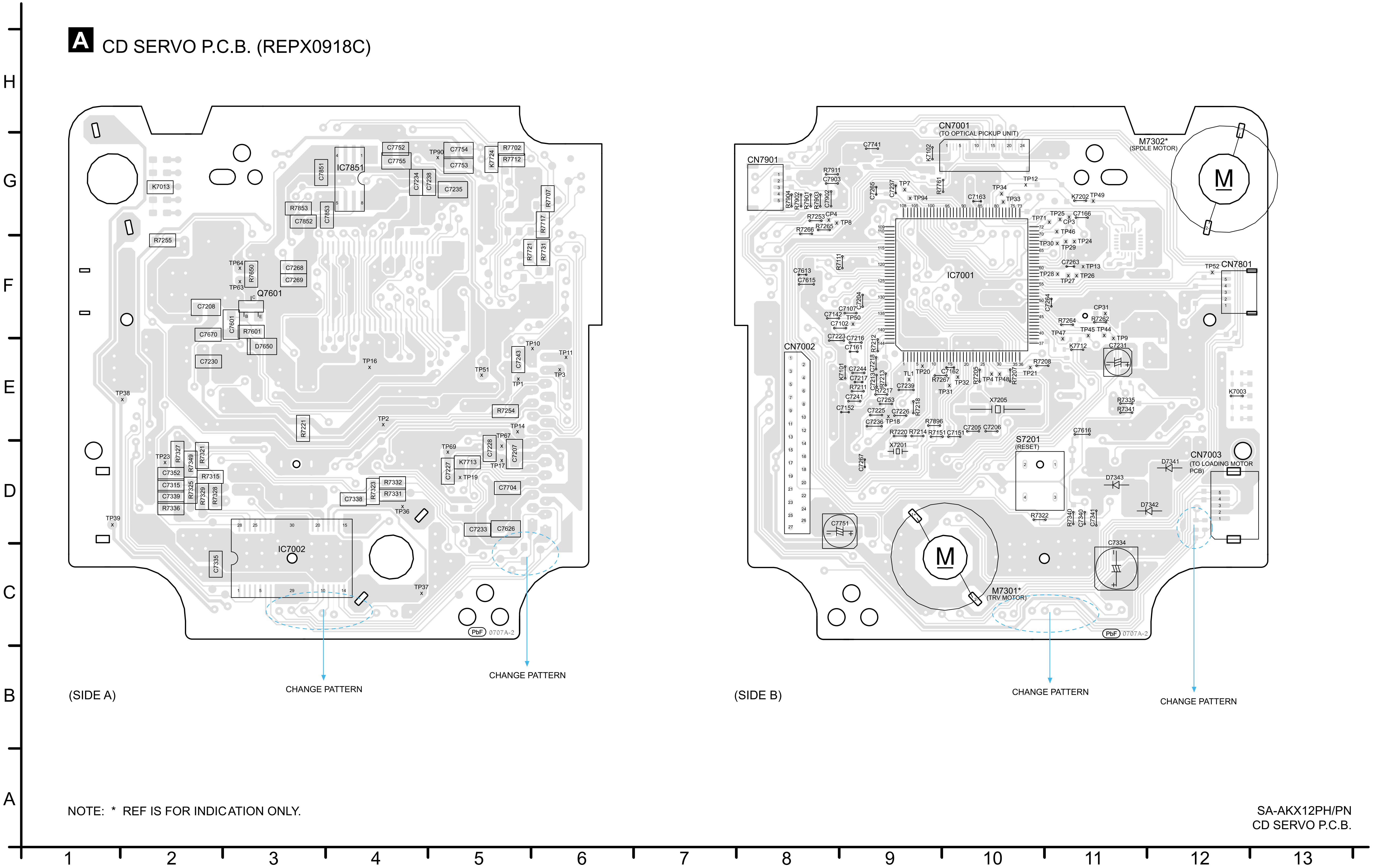


NOTE: " * " REF IS FOR INDICATION ONLY.

SA-AKX12EB/EG/GN
SMPS P.C.B.

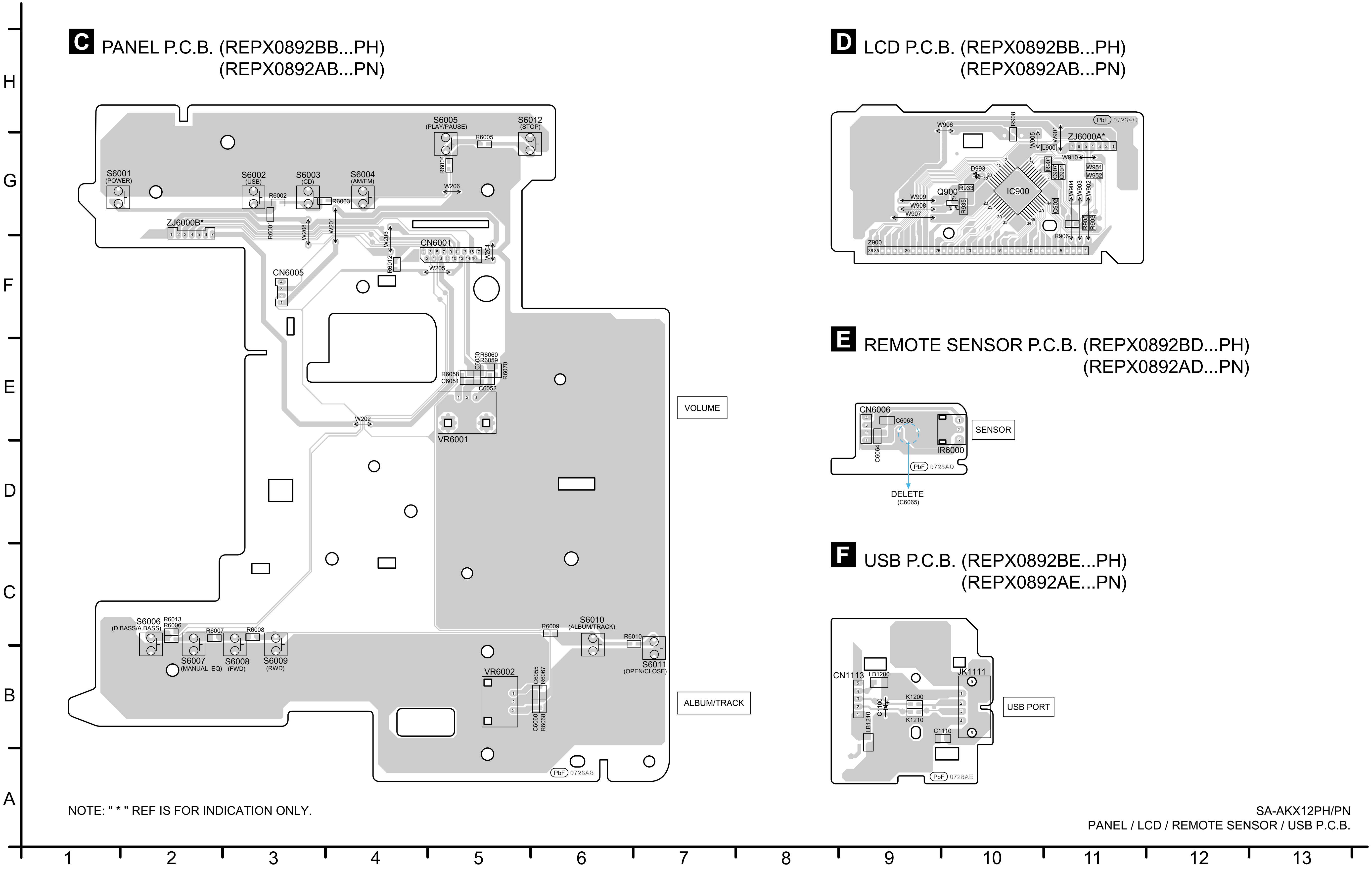
4.4. CD Servo P.C.B. (For SA-AKX12PH/PN-K, SA-AKX12PR-K)

With reference to original service manual (section 17.1.) on page 89 for Model No. SA-AKX12PH/PN-K
With reference to SA-AKX12PH/PN-K service manual (section 17.1.) on page 89 for Model No. SA-AKX12PR-K



4.5. Panel, LCD, Remote Sensor & USB P.C.B. (For SA-AKX12PH/PN-K, SA-AKX12PR-K)

With reference to original service manual (section 17.3.) on page 91 for Model No. SA-AKX12PH/PN-K
With reference to SA-AKX12PH/PN-K service manual (section 17.3.) on page 91 for Model No. SA-AKX12PR-K



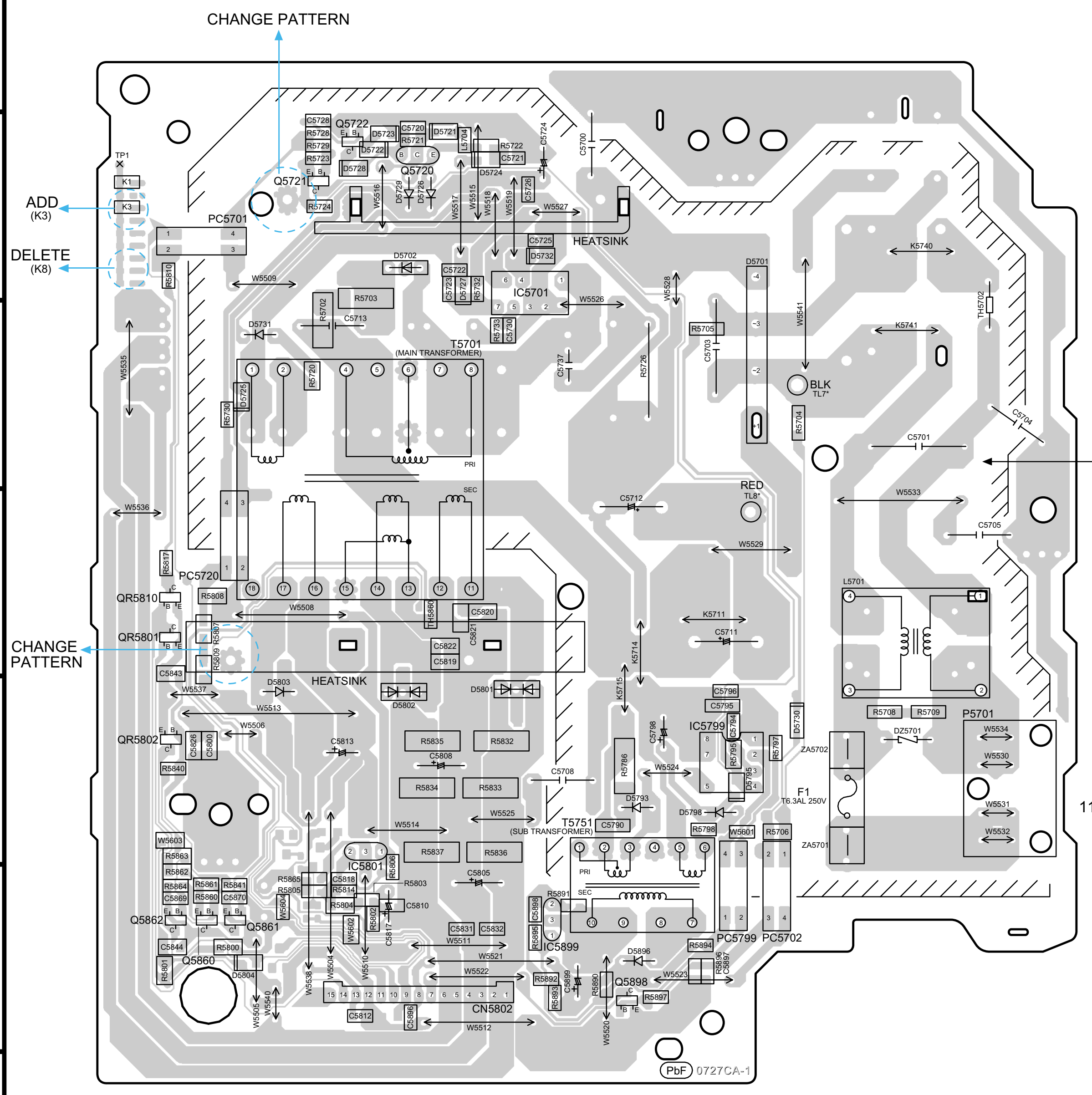
NOTE: " * " REF IS FOR INDICATION ONLY.

SA-AKX12PH/PN
PANEL / LCD / REMOTE SENSOR / USB P.C.B.

4.6. SMPS & Voltage Selector P.C.B. (For SA-AKX12PH/PN-K, SA-AKX12PR-K)

With reference to original service manual (section 17.4.) on page 92-93 for Model No. SA-AKX12PH/PN-K
With reference to SA-AKX12PH/PN-K service manual (section 17.4.) on page 92-93 for Model No. SA-AKX12PR-K

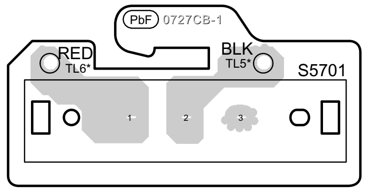
H SMPS P.C.B. (REPX0886C...PH)



CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE.
PLEASE DO NOT TOUCH THIS P.C.B

AC IN ~
110-127V/220-240V
50/60Hz

I VOLTAGE SELECTOR P.C.B. (REPX0886C...PH)

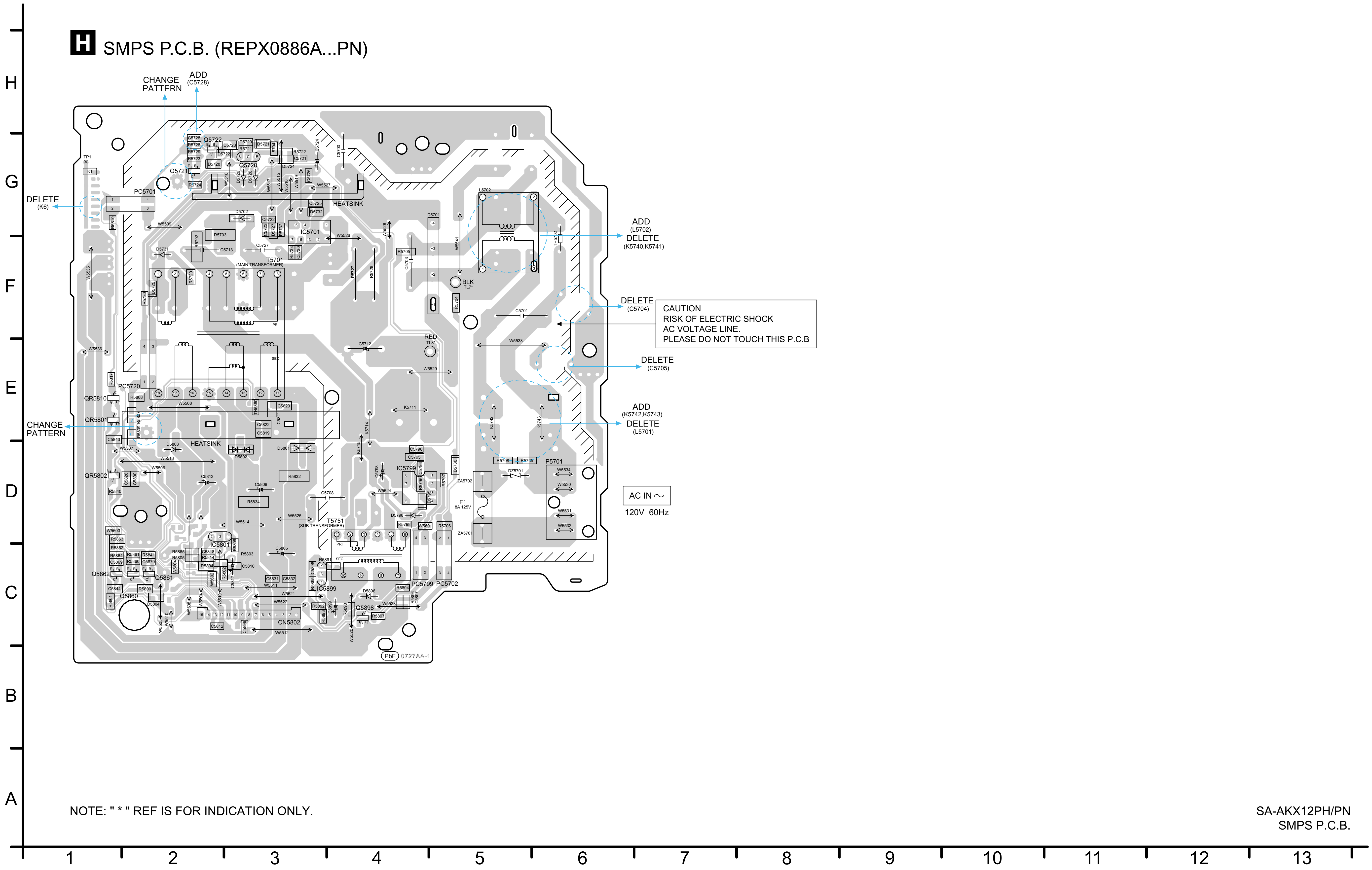


VOLT ADJ

NOTE: " * " REF IS FOR INDICATION ONLY.

SA-AKX12PH/PN
SMPS / VOLTAGE SELECTOR P.C.B.

H SMPS P.C.B. (REPX0886A...PN)



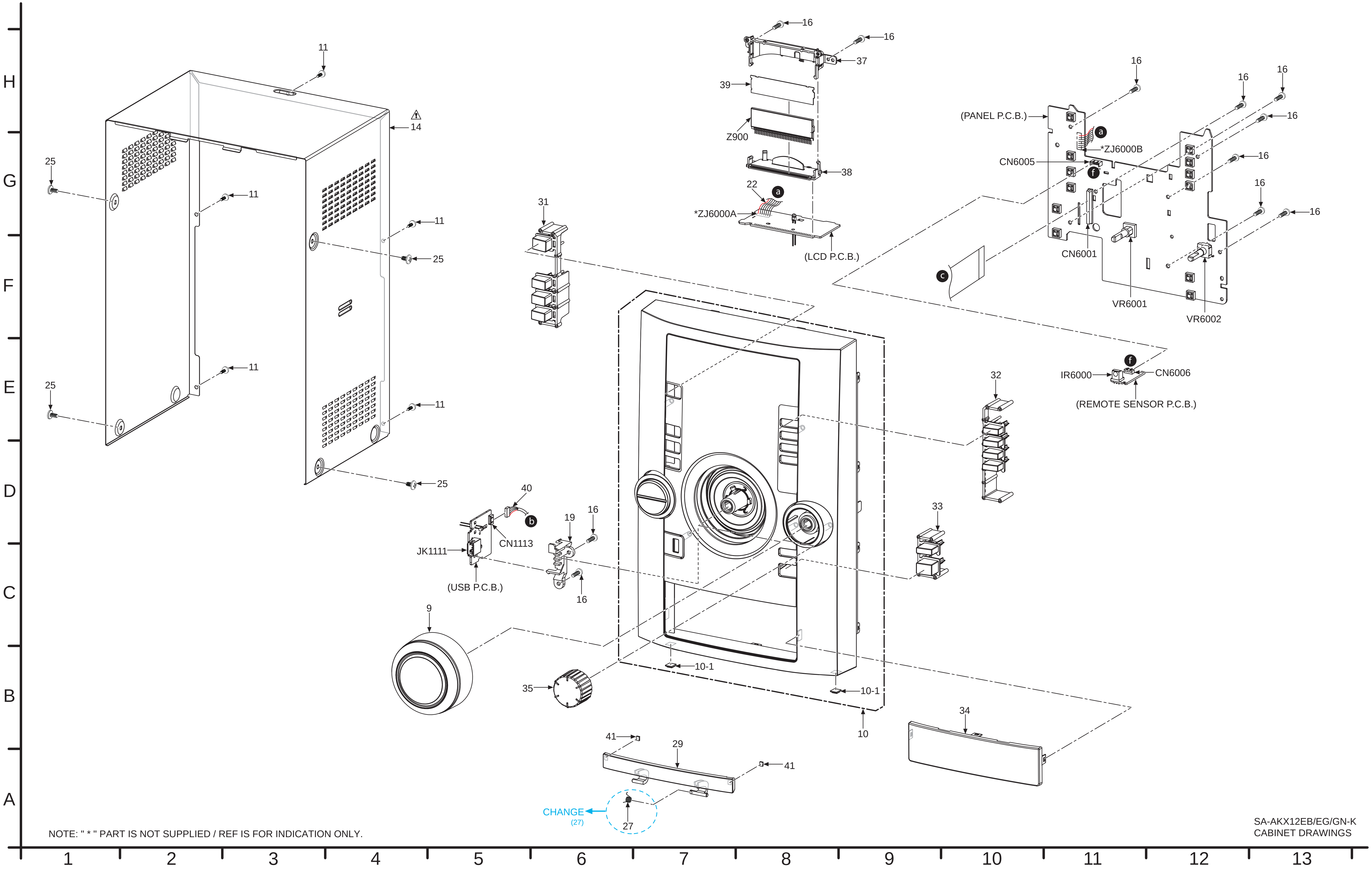
NOTE: " * " REF IS FOR INDICATION ONLY.

SA-AKX12PH/PN
SMPS P.C.B.

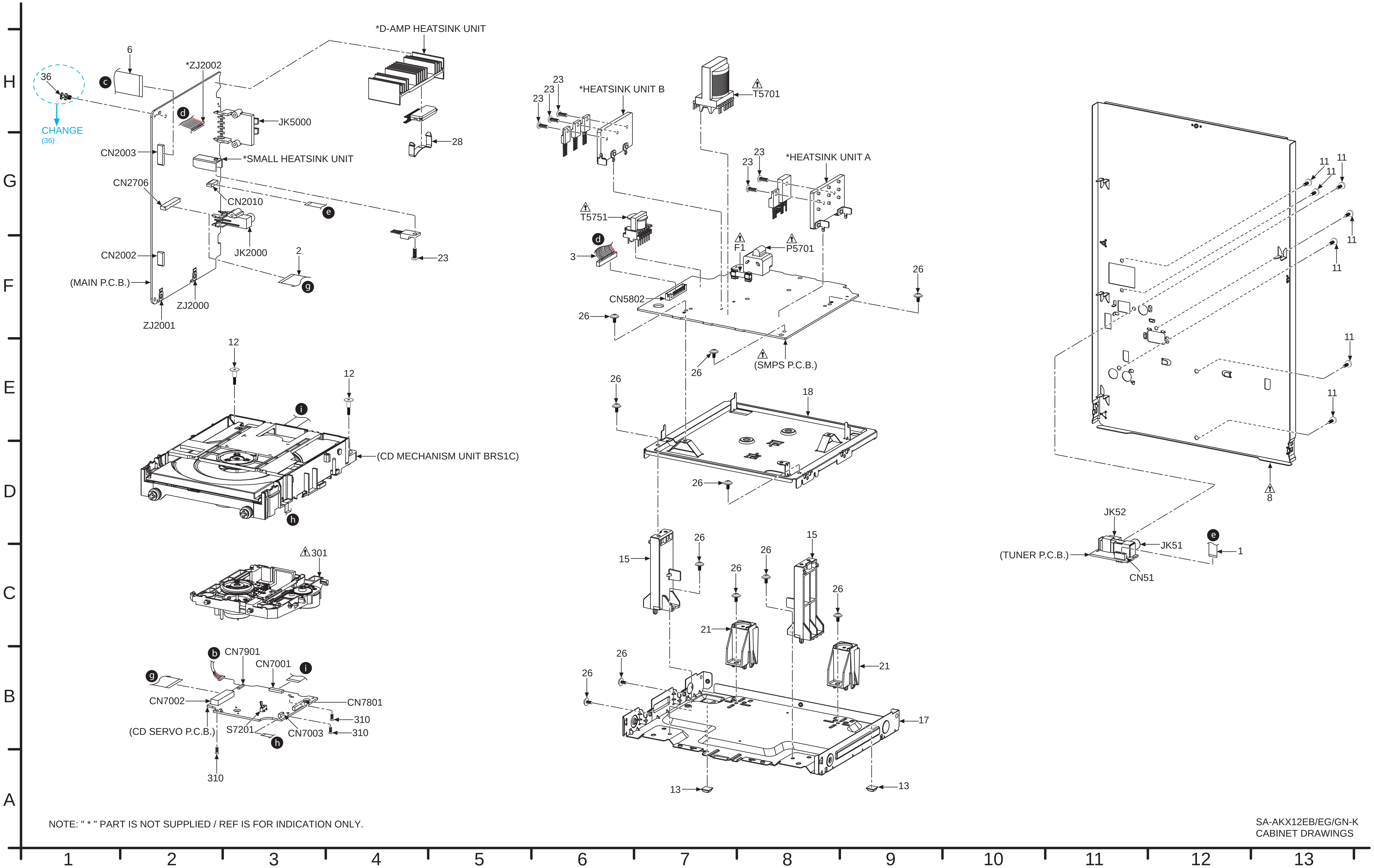
5 Exploded View

5.1. Cabinet Parts Location (For SA-AKX12EB/EG/GN-K)

With reference to original service manual (section 19.1.1) on page 95-96 for Model No. SA-AKX12EB/EG/GN-K



NOTE: " * " PART IS NOT SUPPLIED / REF IS FOR INDICATION ONLY.

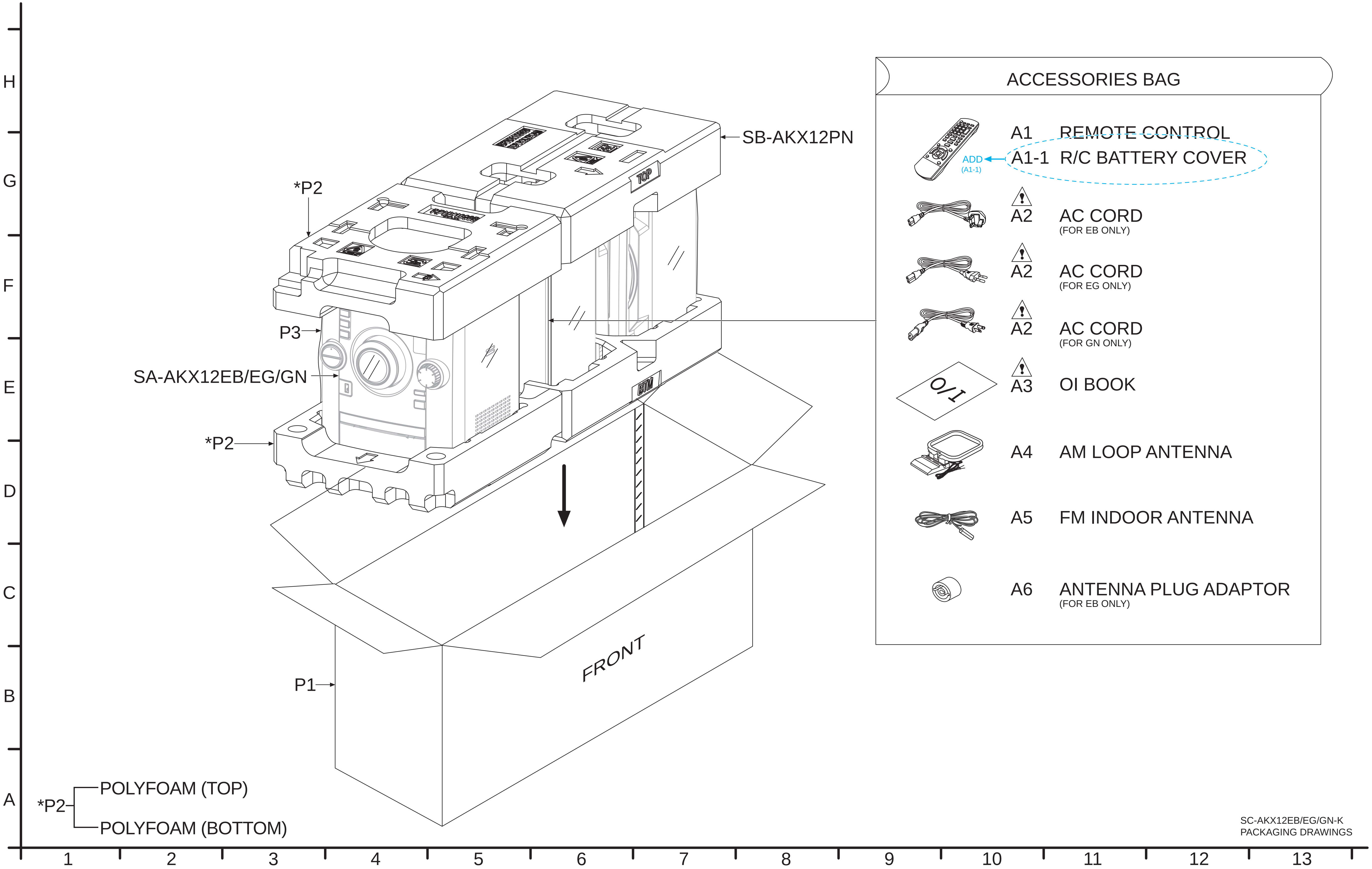


NOTE: " * " PART IS NOT SUPPLIED / REF IS FOR INDICATION ONLY.

SA-AKX12EB/EG/GN-K
CABINET DRAWINGS

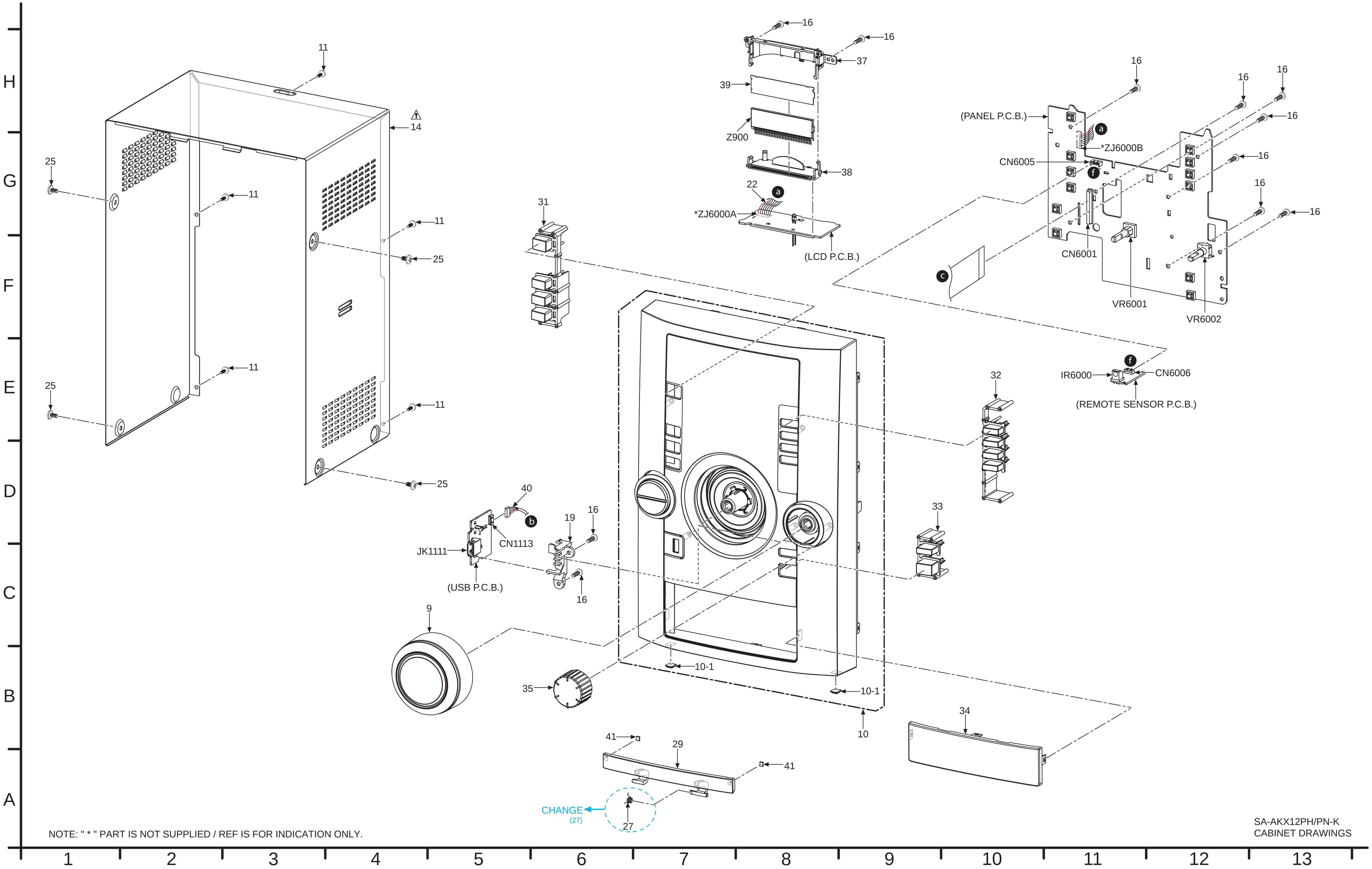
5.2. Packaging (For SA-AKX12EB/EG/GN-K)

With reference to original service manual (section 19.1.2) on page 97 for Model No. SA-AKX12EB/EG/GN-K



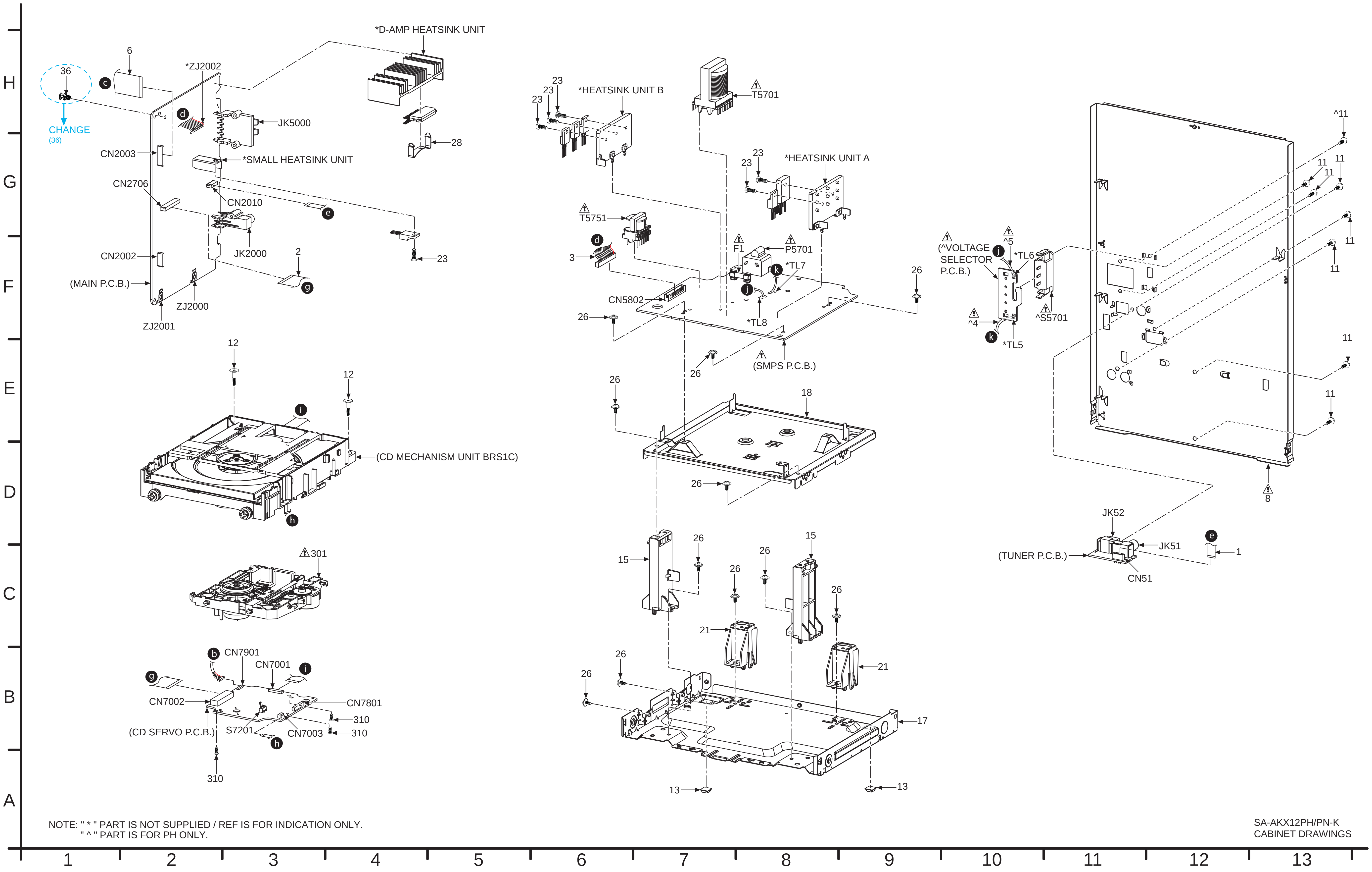
5.3. Cabinet Parts Location (For SA-AKX12PH/PN-K)

With reference to original service manual (section 19.1.1) on page 97-98 for Model No. SA-AKX12PH/PN-K



NOTE: " * " PART IS NOT SUPPLIED / REF IS FOR INDICATION ONLY.

SA-AKX12PH/PN-K
CABINET DRAWINGS

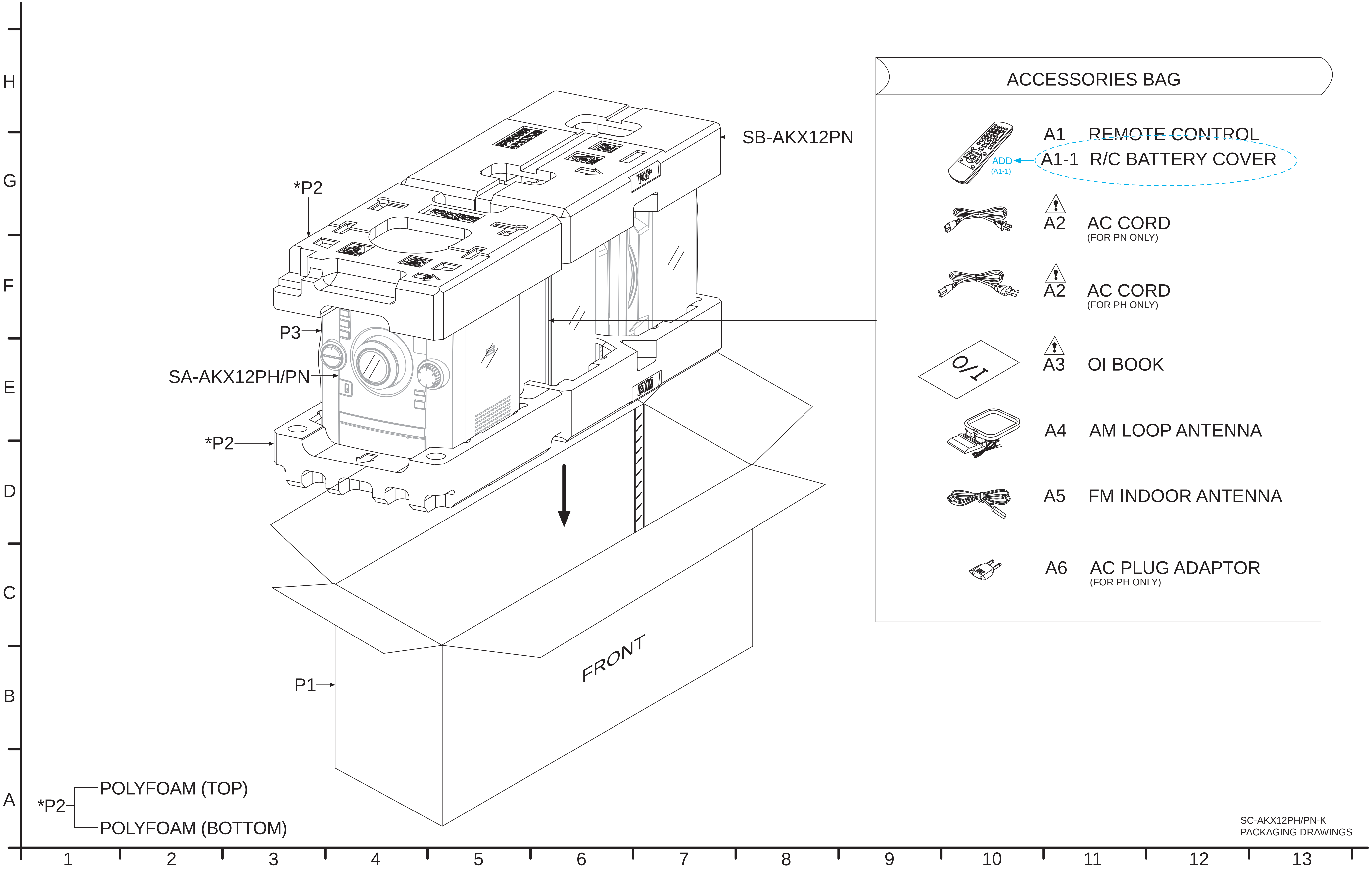


NOTE: " * " PART IS NOT SUPPLIED / REF IS FOR INDICATION ONLY.
" ^ " PART IS FOR PH ONLY.

SA-AKX12PH/PN-K
CABINET DRAWINGS

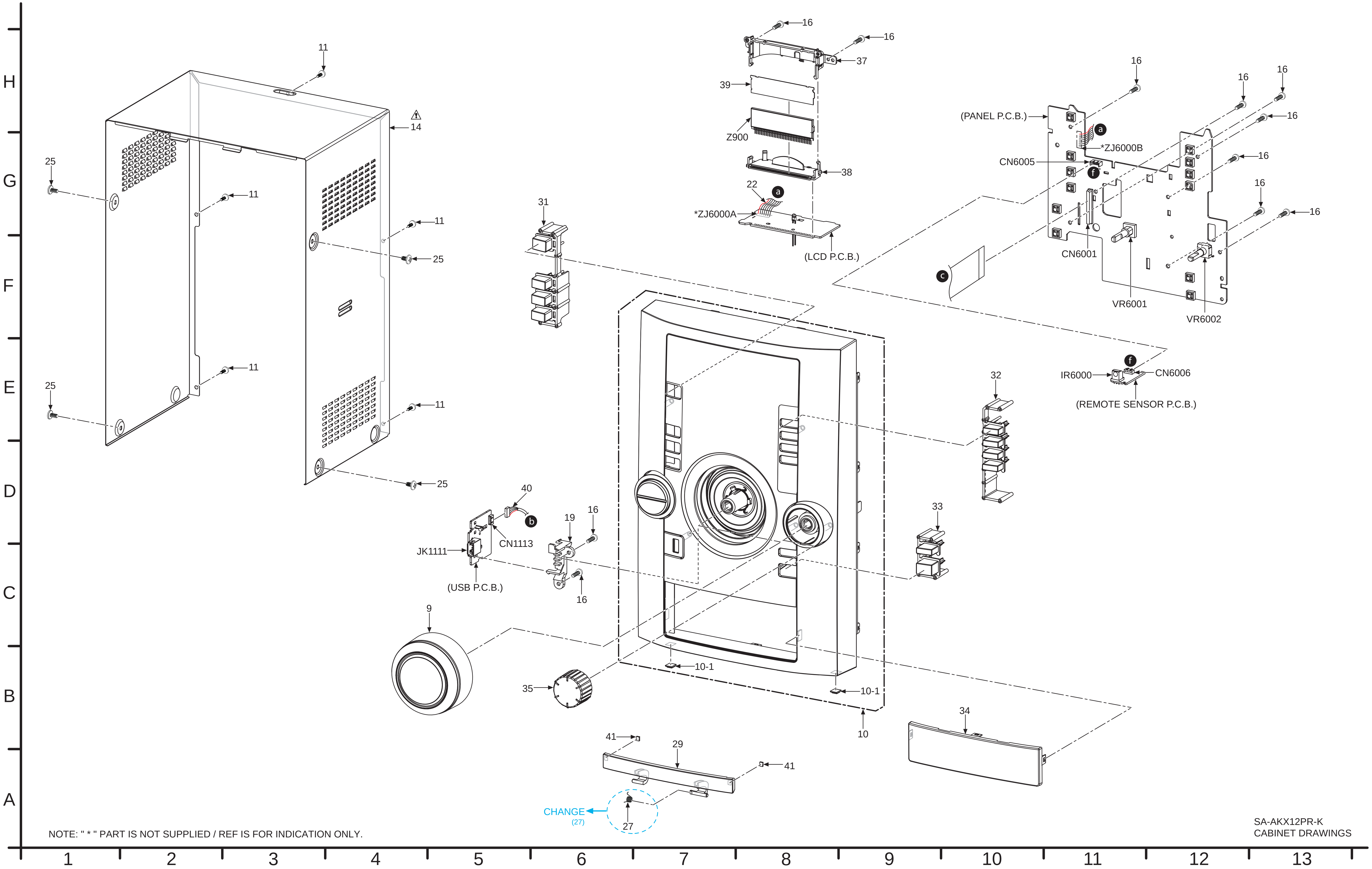
5.4. Packaging (For SA-AKX12PH/PN-K)

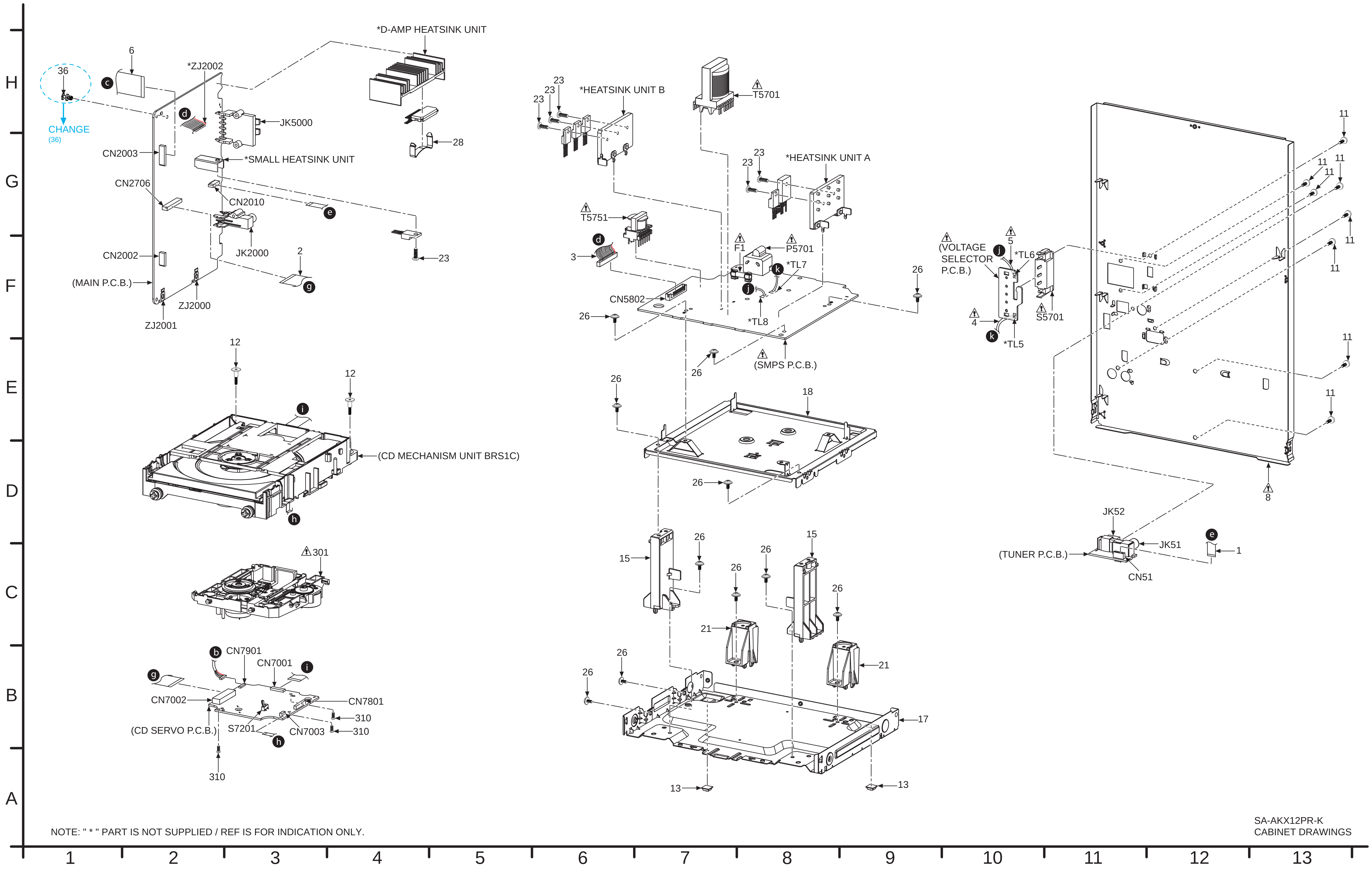
With reference to original service manual (section 19.1.2) on page 99 for Model No. SA-AKX12PH/PN-K



5.5. Cabinet Parts Location (For SA-AKX12PR-K)

With reference to original service manual (section 5.1.1) on page 13-14 for Model No. SA-AKX12PR-K



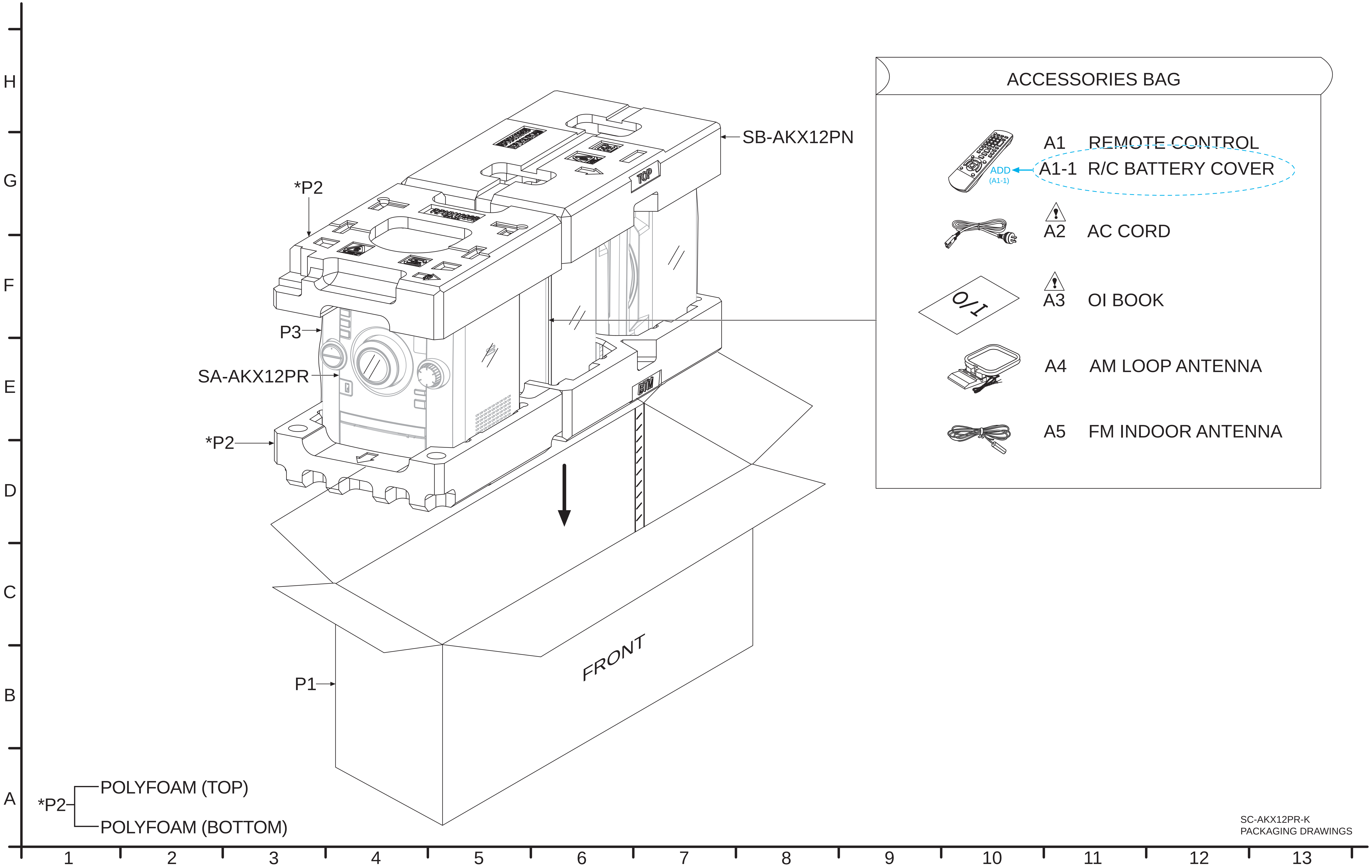


NOTE: " * " PART IS NOT SUPPLIED / REF IS FOR INDICATION ONLY.

SA-AKX12PR-K
CABINET DRAWINGS

5.6. Cabinet Parts Location (For SA-AKX12PR-K)

With reference to original service manual (section 5.1.2) on page 15 for Model No. SA-AKX12PR-K



6 Replacement Parts List

Reason for Change

*The circled item indicates the reason. If no marking, see the Notes in the bottom column.

○	1. Improve performance
	2. Change of material or dimension
	3. To meet approved specification
	4. Standardization
○	5. Addition
○	6. Deletion
	7. Correction
○	8. Other

Interchangeability Code

**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.

	Parts	Set Production	
○	A Original New	Early Late	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
	B Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
○	C Original New	Early Late	New parts only may be used in early or late production sets. Stock new parts.
	D Original New	Early Late	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
○	E Other		

Please revise the original parts list in the Service Manual to conform to the change(s) shown herein.
If new part numbers are shown, be sure to use them when ordering parts.
Please file and use this manual together with the original service manual.

6.1. Mechanical Replacement Parts List

Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Original Part Name & Descriptions	New Part Name & Descriptions	Remarks
SA-AKX12EB/ EG/GN-K	27	RMBX0073	RMB0930	1/A	CD LID OPEN SPRING	CD LID OPEN SPRING	CHANGE
	36	RMR0502A-W	RMX0444	1/A	PCB SPACER	PCB SPACER	CHANGE
	A1-1	-	RKK-PM500EBK	5/C	-	R/C BATTERY COVER	ADD
SA-AKX12PH/ PN/PR-K	27	RMBX0073	RMB0930	1/A	CD LID OPEN SPRING	CD LID OPEN SPRING	CHANGE
	36	RMR0502A-W	RMX0444	1/A	PCB SPACER	PCB SPACER	CHANGE
	A1-1	-	RKK-PM500EBK	5/C	-	R/C BATTERY COVER	ADD

6.2. Electrical Replacement Parts List

Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Original Part Name & Descriptions	New Part Name & Descriptions	Remarks
SA-AKX12EB/ EG/GN-K	C2119	F1H1H683A783	F1H1C683A087	1/C	0.068uF 50V	0.068uF 16V	CHANGE
	C2126	F1H1H683A783	F1H1C683A087	1/C	0.068uF 50V	0.068uF 16V	CHANGE
	C2188	F2A1C330A698	F2A1A330B138	1/C	33uF 16V	33uF 10V	CHANGE
	C2234	F2A1E102A207	F2A1E102B396	1/C	1000uF 25V	1000uF 25V	CHANGE
	C5945	F1K2A1040007	F1K1H104A001	1/C	0.1uF 100V	0.1uF 50V	CHANGE
	C5966	F1K2A1040007	F1K1H104A001	1/C	0.1uF 100V	0.1uF 50V	CHANGE
	C6065	F2A1H220B411	-	6/E	22uF 50V	-	DELETE
	D5701	B0FBAR000043	B0EBNR000045	8/A	DIODE	DIODE	CHANGE
	IC5801	C0DABFC00002	C0DAAYY00072	1/A	IC	IC	CHANGE
	IC5899	C0DAEMZ00001	C0DAEYY00040	1/A	IC	IC	CHANGE
	K1	D0GBR00JA008	NA	1/C	0 1/16W	-	DELETE
	K2	-	D0GBR00JA008	1/C	-	0 1/10W	ADD
	K7	D0GBR00JA008	-	1/E	0 1/16W	-	DELETE
SA-AKX12PH/ PN/PR-K	C2119	F1H1H683A783	F1H1C683A087	1/C	0.068uF 50V	0.068uF 16V	CHANGE
	C2126	F1H1H683A783	F1H1C683A087	1/C	0.068uF 50V	0.068uF 16V	CHANGE
	C2188	F2A1C330A698	F2A1A330B138	1/C	33uF 16V	33uF 10V	CHANGE
	C2234	F2A1E102B694	F2A1E102B396	1/C	1000uF 25V	1000uF 25V	CHANGE
	C5704	F1BAF471A013	-	1/E	470pF	-	DELETE (PN)
	C5705	F1BAF471A013	-	1/E	470pF	-	DELETE (PN)
	C5728	-	F1H1H102A219	1/C	-	1000pF 50V	ADD (PN)
	C5945	F1K2A1040007	F1K1H104A001	1/C	0.1uF 100V	0.1uF 50V	CHANGE
	C5966	F1K2A1040007	F1K1H104A001	1/C	0.1uF 100V	0.1uF 50V	CHANGE
	C6065	F2A1H220B411	-	8/E	22uF 50V	-	DELETE
	D5701	B0FBAR000043	B0EBNR000045	8/A	DIODE	DIODE	CHANGE
	IC5801	C0DABFC00002	C0DAAYY00072	1/A	IC	IC	CHANGE
	IC5899	C0DAEMZ00001	C0DAEYY00040	1/A	IC	IC	CHANGE
	K3	-	D0GBR00JA008	1/C	-	0 1/10W	ADD (PH/PR)
	K6	D0GBR00JA008	-	1/E	0 1/16W	-	DELETE (PN)
	K8	D0GBR00JA008	-	1/E	0 1/16W	-	DELETE (PH/PR)
	L5701	G0B612H00002	-	1/E	LINE FILTER	-	DELETE (PN)
	L5702	-	G0B612H00002	1/C	-	INDUCTOR	ADD (PN)

T.I No.ME2100088, ME2110296, ME2110634, ME2110773, ME2110813, ME2111324, ME2111558, MM2110740, MM2111469 (For Factory Reference only).

IPSG1109