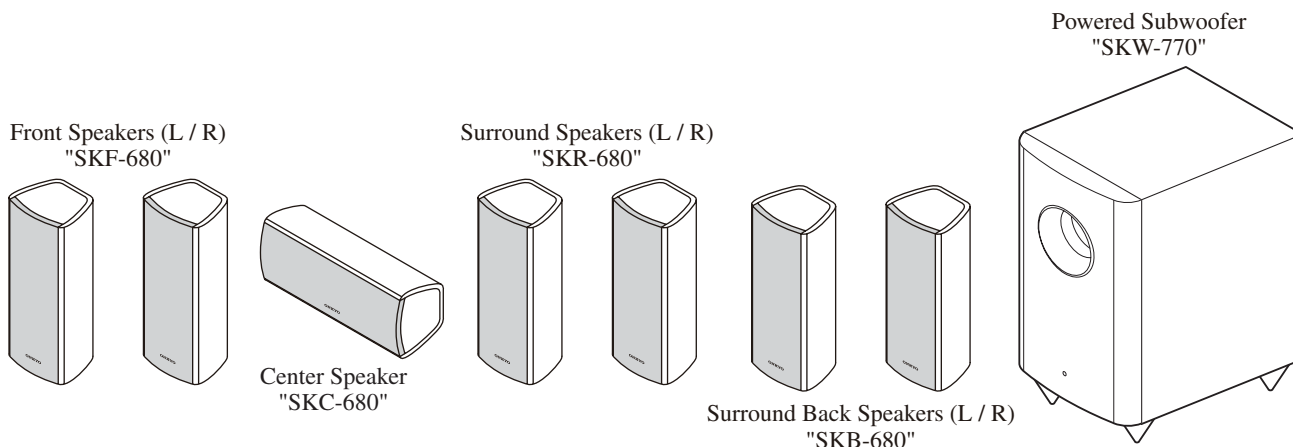


ONKYO SERVICE MANUAL


7.1-CH HOME THEATER SPEAKER PACKAGE MODEL HTP-680(B)



Black model

B MDC	120V AC, 60Hz
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

ADJUSTMENT PROCEDURE

SKW-770 : POWERED SUBWOOFER / ADJUSTMENT OF IDLING CURRENT

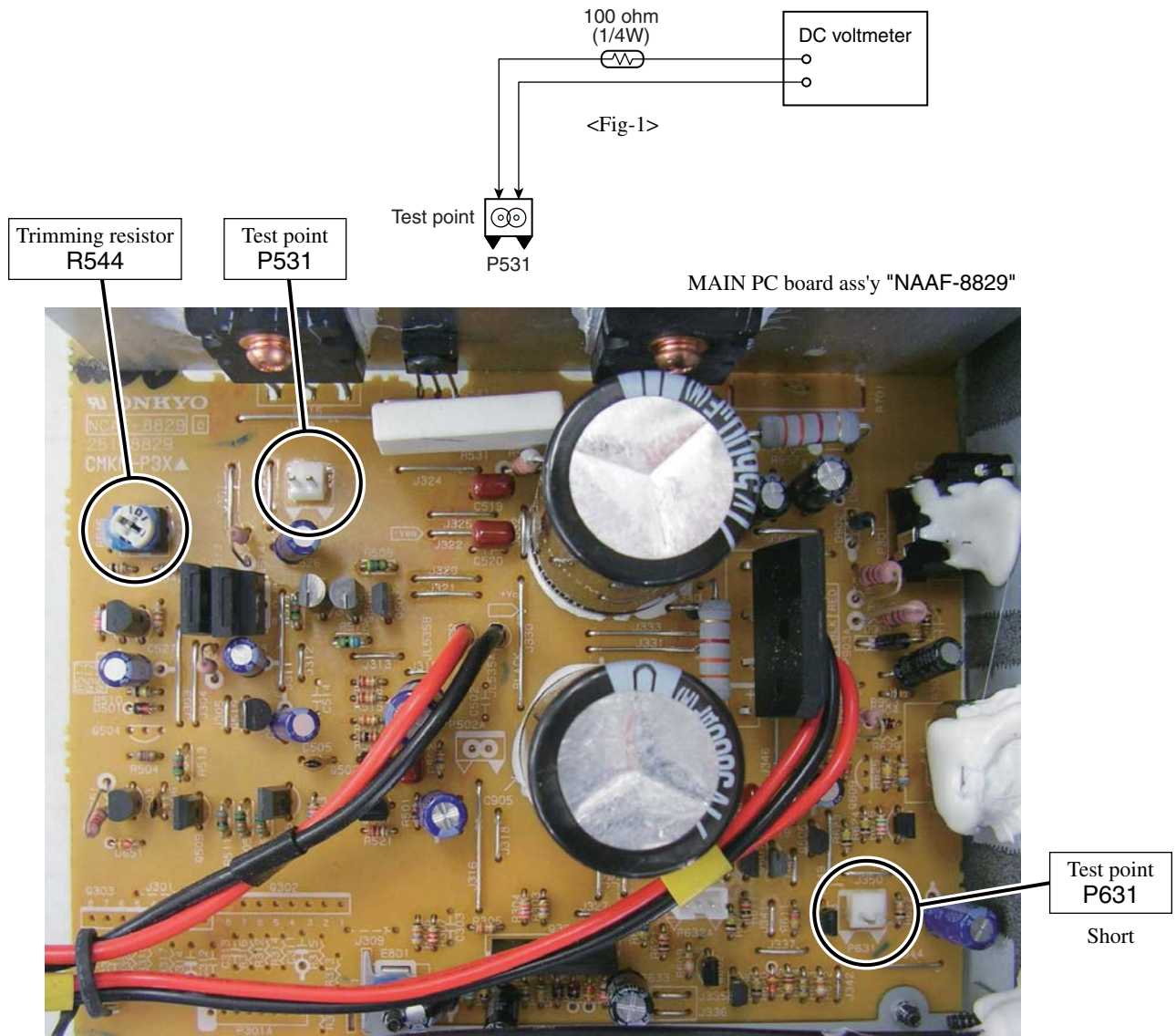
[When]

1. Exchange transistors (Q505 - Q519).
2. Exchange MAIN PC board ass'y (NAAF-8829).

[Procedure]

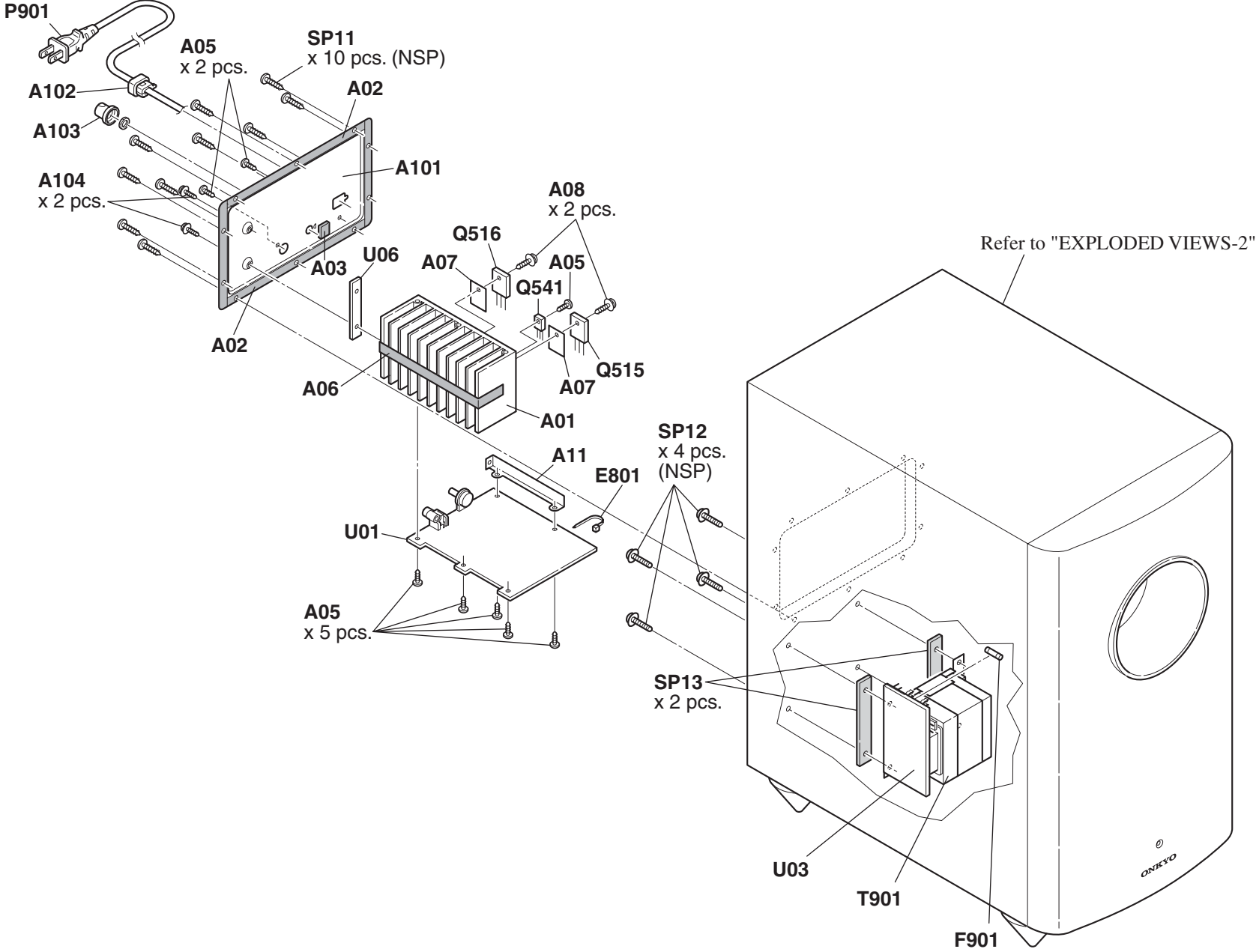
<Note> No speaker load and No input signal.

1. Short test point P631 for amplifier is under active mode.
2. Adjust the trimming resistor R544 so that the reading of multimeter becomes 52 ohm to 53 ohm.
3. Connect the DC voltmeter to test point P531. <Fig-1>
4. Connect the power cord into the AC outlet.
5. Confirm the voltage of above point after 6 minutes to 8 minutes. (Heat running)
6. When less than 3.20 mV : Readjust the trimming resistor above so that the voltage becomes 4.5 mV to 5.0 mV.
When 3.30 mV to 5.20 mV : Not necessary to adjust.
7. Disconnect the power cord from the AC outlet.
8. Disconnect the DC voltmeter.

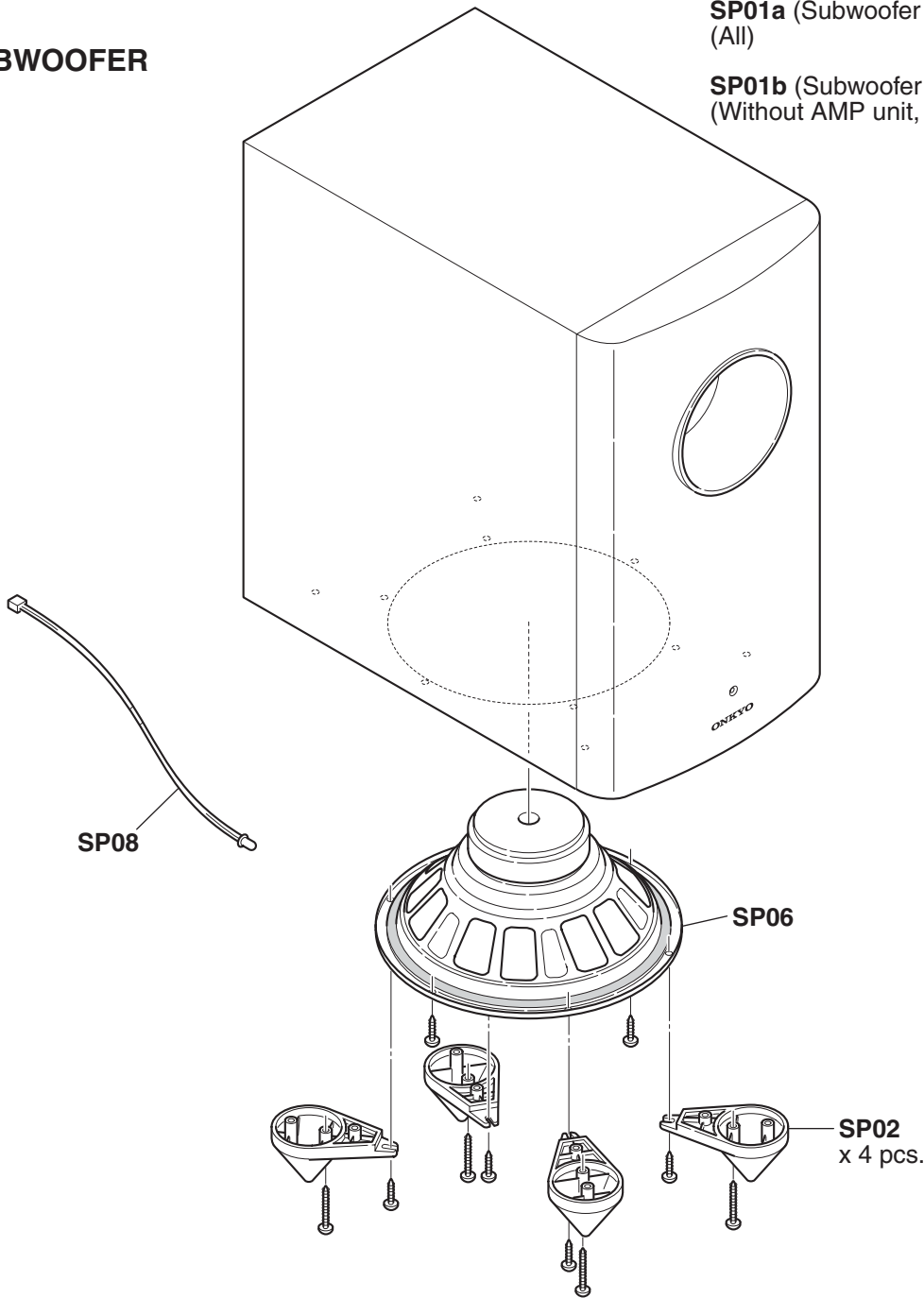


EXPLODED VIEWS-1

SKW-770 : POWERED SUBWOOFER



EXPLODED VIEWS-2
SKW-770 : POWERED SUBWOOFER



SP01a (Subwoofer ass'y)
(All)

SP01b (Subwoofer ass'y)
(Without AMP unit, Speaker unit and Power transformer)

SP08

SP06

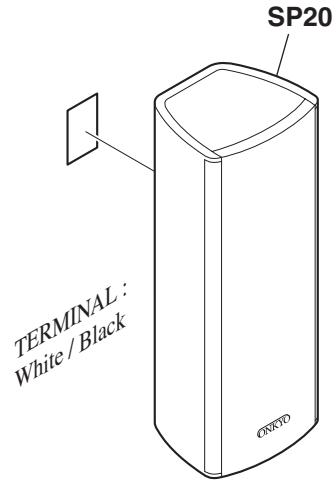
SP02
x 4 pcs.

EXPLODED VIEWS-3

SKF-680 / SKC-680 / SKR-680 / SKB-680

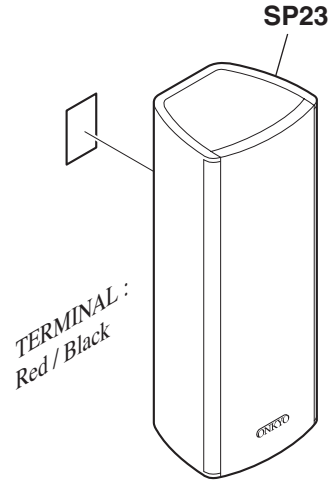
<Note>

Cannot remove the speaker grill.

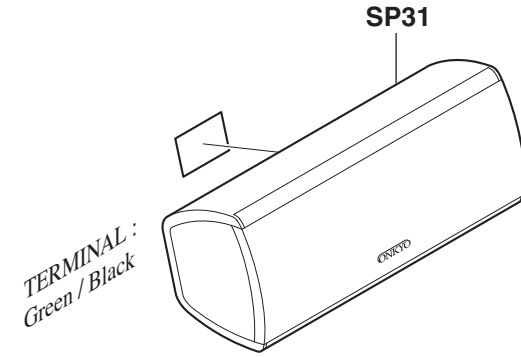


"SKF-680 <L>"

NOT MAGNETICALLY SHIELDED

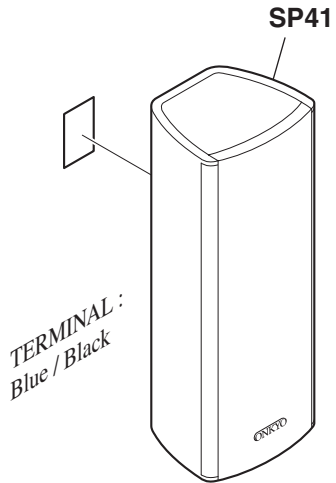


"SKF-680 <R>"



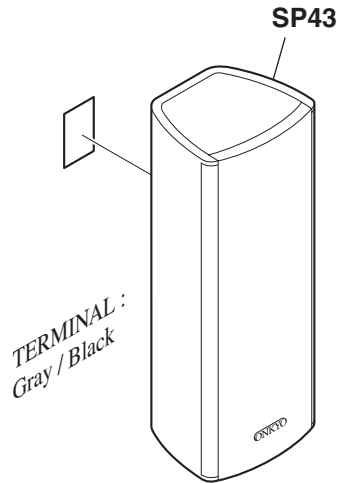
"SKC-680"

NOT MAGNETICALLY SHIELDED

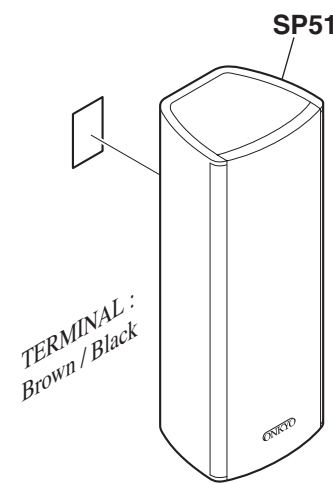


"SKR-680 <L>"

NOT MAGNETICALLY SHIELDED

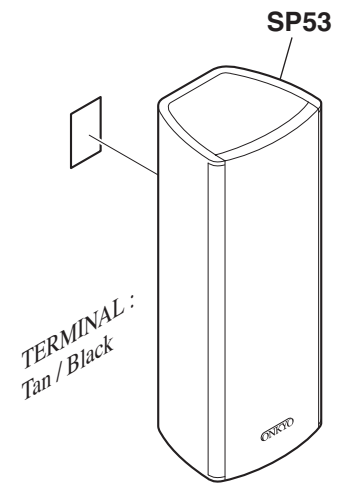


"SKR-680 <R>"



"SKB-680 <L>"

NOT MAGNETICALLY SHIELDED

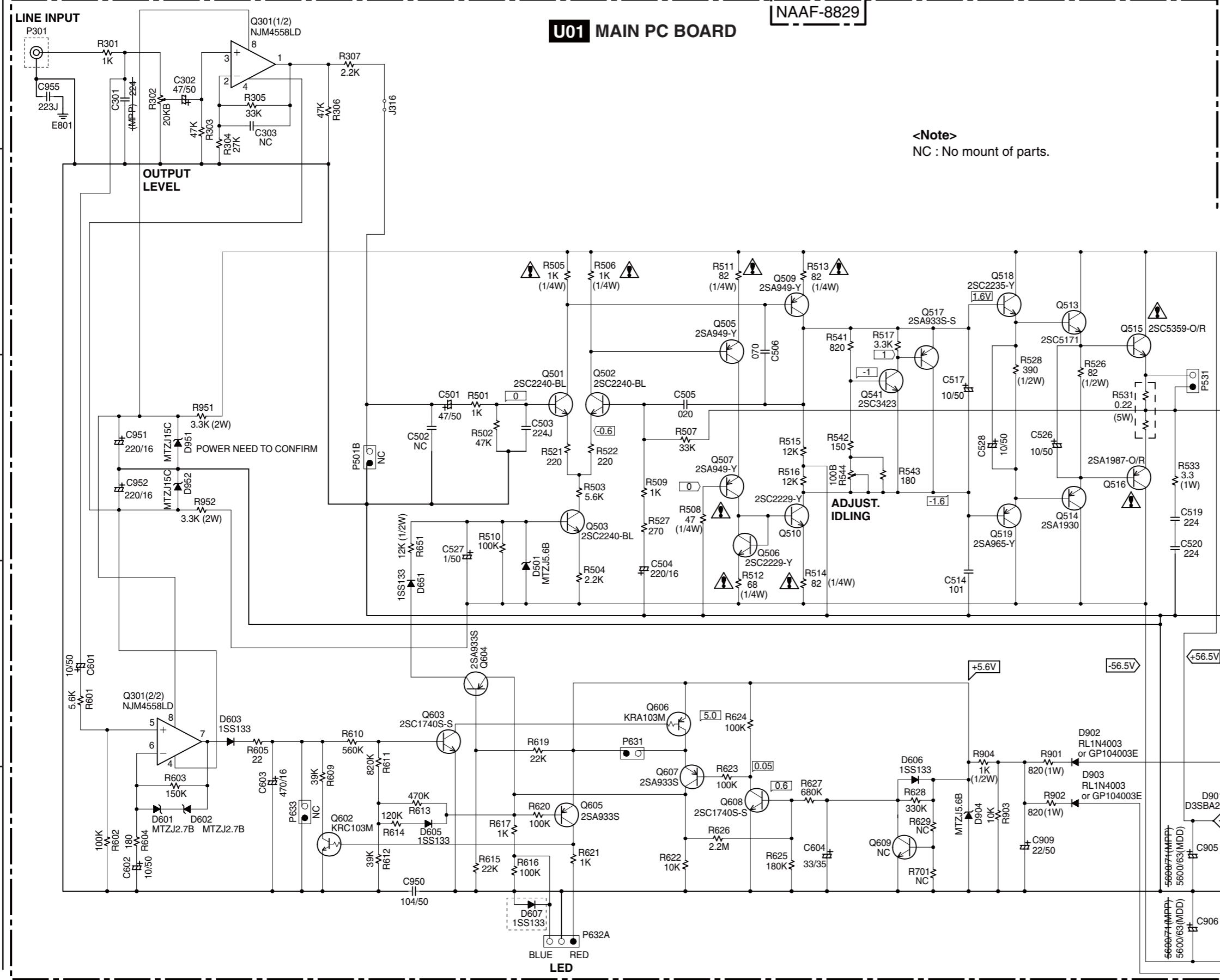


"SKB-680 <R>"

SCHEMATIC DIAGRAMS-1

SKW-770 : POWERED SUBWOOFER

1
2
3
4
5



NAAF-8829

U01 MAIN PC BOARD

U03 POWER TRANSFORMER PC BOARD

NOTE

- THE COMPONENTS IDENTIFIED BY MARK ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) IS DC VOLTAGE. (NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS () ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
- EX) 030- 3pF 330- 33pF 331- 330pF 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
- EX) PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

<Note>
NC : No mount of parts.



CAUTION

FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.



ATTENTION

AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.



THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE HAZARD. REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MARKING ADJACENT TO THE SYMBOL.



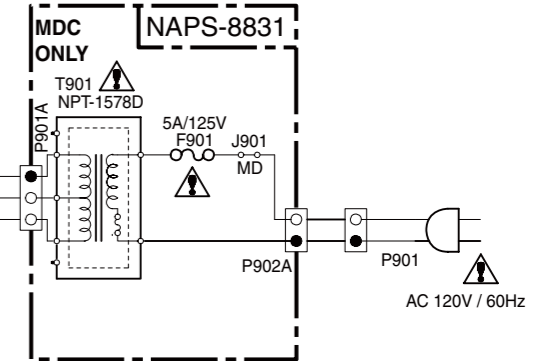
CE SYMBOLE INDIQUE QUE LE FUSIBLE UTILISE EST E LENT. POUR UNE PROTECTION PERMANENTE, UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DERNIER EST INDIQUE LA QU LE PRESENT SYMBOLE EST APPOSE.

SPEAKER



JL535A/B

LED
BLUE RED



AC 120V / 60Hz

A

B

C

D

PRINTED CIRCUIT BOARD VIEWS-2
SKW-770 : POWERED SUBWOOFER

1

U03 POWER TRANSFORMER PC BOARD (NAPS-8831)

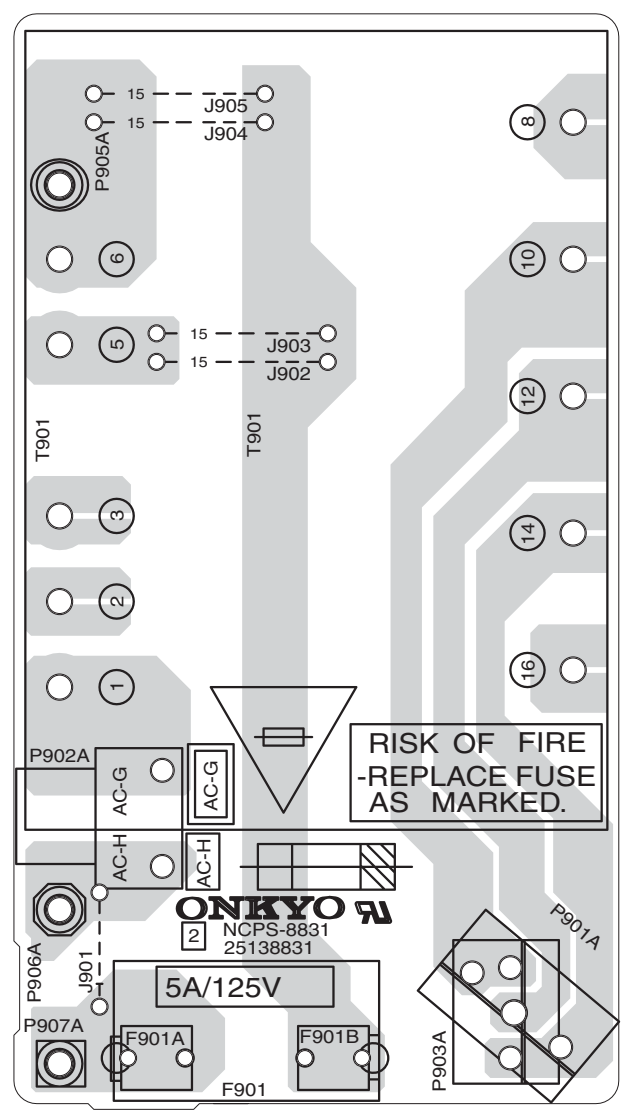
Component side

2

3

4

5



HTP-680

EXPLODED VIEWS PARTS LIST

NOTE : THE COMPONENTS IDENTIFIED BY THE MARK
 ! ARE CRITICAL FOR RISK OF FIRE AND
 ELECTRIC SHOCK. REPLACE ONLY WITH PART
 NUMBER SPECIFIED.

<Notes>
 <L> : Lch
 <R> : Rch

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
EXPLODED	SKW-770 (B) : POWERED SUBWOOFER				
EXPLODED	AMPLIFIER SECTION (SKW-770)				
EXPLODED	Q515	TR		2203082	!
EXPLODED	Q515 or	TR	(1)	2203083	!
EXPLODED	Q516	TR		2203072	!
EXPLODED	Q516 or	TR	(1)	2203073GR	!
EXPLODED	Q541	TR		2202104	
EXPLODED	Q541 or	TR	(1)	2202103	
EXPLODED	<Note>				
EXPLODED	When replacement the following the transistor, made from the same HFE rank as the original type.				
EXPLODED	Q515, Q516, Q541				
EXPLODED	A01	HEAT SINK		27160591	
EXPLODED	A02	CUSHION		28141682	
EXPLODED	A03	CUSHION		28141691	
EXPLODED	A05	SCREW	8	838430088GR	
EXPLODED	A06	TAPE	(1)	29110083	
EXPLODED	A07	ISO SHEET	2	223025	
EXPLODED	A08	SCREW	2	801634	
EXPLODED	A11	RETAINER		27142025	
EXPLODED	A101	REAR PANEL		27124058	
EXPLODED	A102	BUSHING		27300750	!
EXPLODED	A103	KNOB		28326463	
EXPLODED	A104	SCREW	2	801433GR	
EXPLODED	F901	FUSE		252326GR	!
EXPLODED	P901	AC CORD		253368BLTK	!
EXPLODED	P901 or	AC CORD	(1)	253368AYUN	!
EXPLODED	T901	P TRANS		2301948	!
EXPLODED	E801	WIRE TIE		260208	

EXPLODED	U01	MAIN PC BOARD ASS'Y	NAAF-8829-1AD*	1	1B138529-1AD	
EXPLODED	U03	POWER TRANS. PC BOARD ASS'Y	NAPS-8831-1AD	1	1B138531-1AD	
EXPLODED	U06	HOLDER PC BOARD	NAETC-8834	1	---	NSP
EXPLODED	SPEAKER SECTION (SKW-770)					
EXPLODED	SP01a	SPK SYSTEM ASS'Y(ALL)	SKW-770 (B) MDC	1	000-SKW680BMDCCSER	
EXPLODED	SP01b	SUBWOOFER ASS'Y	SKW-770 (B) MDC	1	000-SKW770BESER	
EXPLODED	<Note>					
EXPLODED	SP01a = ALL					
EXPLODED	SP01b = Without AMP unit, Speaker unit and Power transformer					
EXPLODED	SP02	FOOT	(PLASTIC)	4	D249-W55001B-01	
EXPLODED	SP06	WOOFER	10" (25cm) 4 ohm 80W (ONKYO ELE)	1	W2301G	
EXPLODED	SP08	LED HARNESS ASS'Y	---	1	335-SKW750-01	
EXPLODED	SP13	CUSHION RUBBER PAD	19 x 89 T2 RUBBER (FOR P-TRANS)	2	442-902138-00	
EXPLODED	SKF-680 <L> / <R> (B) : FRONT SPEAKERS					

EXPLODED	SP21	SPK SYSTEM ASS'Y	"SKF-680 <L> (B)" COMPLETE	1	000-SKF680LBMDC	<L>
EXPLODED	SP23	SPK SYSTEM ASS'Y	"SKF-680 <R> (B)" COMPLETE	1	000-SKF680RBMDC	<R>
EXPLODED	SKC-680 (B) : CENTER SPEAKER					
EXPLODED	SP31	SPK SYSTEM ASS'Y	"SKC-680 (B)" COMPLETE	1	000-SKC680BMDC	
EXPLODED	SKR-680 <L> / <R> (B) : SURROUND SPEAKERS					
EXPLODED	SP41	SPK SYSTEM ASS'Y	"SKR-680 <L> (B)" COMPLETE	1	000-SKR680LBMDC	<L>
EXPLODED	SP43	SPK SYSTEM ASS'Y	"SKR-680 <R> (B)" COMPLETE	1	000-SKR680RBMDC	<R>
EXPLODED	SKB-680 <L> / <R> (B) : SURROUND BACK SPEAKERS					
EXPLODED	SP51	SPK SYSTEM ASS'Y	"SKB-680 <L> (B)" COMPLETE	1	000-SKB680LBMDC	<L>
EXPLODED	SP53	SPK SYSTEM ASS'Y	"SKB-680 <R> (B)" COMPLETE	1	000-SKB680RBMDC	<R>

HTP-680

PRINTED CIRCUIT BOARD PARTS LIST

NOTE : THE COMPONENTS IDENTIFIED BY THE MARK
 ! ARE CRITICAL FOR RISK OF FIRE AND
 ELECTRIC SHOCK. REPLACE ONLY WITH PART
 NUMBER SPECIFIED.

SKW-770

- U01** MAIN PC BOARD (NAAF-8829-1AD)
- U03** POWER TRANS. PC BOARD (NAPS-8831-1AD)

	CIRCUIT NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
PWB	D501	ZENER D	MTZJ5.6B	1	224470562T	
PWB	D501 or	ZENER D	DZ-5.6BSB	(1)	224850562T	
PWB	D601	ZENER D	MTZJ2.7B	1	224470272T	
PWB	D601 or	ZENER D	DZ-2.7BSB	(1)	224850272T	
PWB	D602	ZENER D	MTZJ2.7B	1	224470272T	
PWB	D602 or	ZENER D	DZ-2.7BSB	(1)	224850272T	
PWB	D603	DIODE	1SS133	1	223163T	
PWB	D603 or	DIODE	1SS133(DS)	(1)	223280T	
PWB	D605	DIODE	1SS133	1	223163T	
PWB	D605 or	DIODE	1SS133(DS)	(1)	223280T	
PWB	D606	DIODE	1SS133	1	223163T	
PWB	D606 or	DIODE	1SS133(DS)	(1)	223280T	
PWB	D607	DIODE	1SS133	1	223163T	
PWB	D651	DIODE	1SS133	1	223163T	

PWB	D651 or	DIODE	1SS133(DS)	(1)	223280T
PWB	D901	DIODE	D3SBA20	1	22380271F
PWB	D901 or	DIODE	D3SBA60	(1)	22380272F
PWB	D902	DIODE	RL1N4003	1	22380260T
PWB	D902 or	DIODE	GP104003E	(1)	22380035T
PWB	D903	DIODE	RL1N4003	1	22380260T
PWB	D903 or	DIODE	GP104003E	(1)	22380035T
PWB	D904	ZENER D	MTZJ5.6B	1	224470562T
PWB	D904 or	ZENER D	DZ-5.6BSB	(1)	224850562T
PWB	D951	ZENER D	MTZJ15C	1	224471503T
PWB	D951 or	ZENER D	DZ-15BSC	(1)	224851503T
PWB	D952	ZENER D	MTZJ15C	1	224471503T
PWB	D952 or	ZENER D	DZ-15BSC	(1)	224851503T
PWB	<Note>				

PWB	When replacement the following the transistor, made from the same HFE rank as the original type.				
PWB	Q301	IC	NJM4558L-D	1	22240293
PWB	Q501	TR	2SC2240-BL(TPE2_F)	1	2211406T
PWB	Q502	TR	2SC2240-BL(TPE2_F)	1	2211406T
PWB	Q503	TR	2SC2240-BL(TPE2_F)	1	2211406T
PWB	Q505	TR	KTA1024-Y	1	2215844T
PWB	Q505 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
PWB	Q505 or	TR	2SA949-O(TPE6_F)	(1)	2211353T
PWB	Q506	TR	2SC2229-Y(TPE6_F)	1	2211634T
PWB	Q506 or	TR	2SC2229-O(TPE6_F)	(1)	2211633T
PWB	Q507	TR	2SA949-Y(TPE6_F)	1	2211354T
PWB	Q507 or	TR	2SA949-O(TPE6_F)	(1)	2211353T
PWB	Q507 or	TR	KTA1024-Y	(1)	2215844T
PWB	Q509	TR	KTA1024-Y	1	2215844T
PWB	Q509 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
PWB	Q509 or	TR	2SA949-O(TPE6_F)	(1)	2211353T
PWB	Q510	TR	KTC3206-Y	1	2215854T
PWB	Q510 or	TR	2SC2229-Y(TPE6_F)	(1)	2211634T
PWB	Q510 or	TR	2SC2229-O(TPE6_F)	(1)	2211633T
PWB	Q513	TR	KTD2061-Y	1	2203434
PWB	Q513 or	TR	2SC5171(ONK_Q)	(1)	2203010
PWB	Q514	TR	KTBI369-Y	1	2203424
PWB	Q514 or	TR	2SA1930(ONK_Q)	(1)	2203000
PWB	Q517	TR	2SA933S-S	1	2213355T
PWB	Q517 or	TR	2SA933S-R	(1)	2213354T
PWB	Q517 or	TR	KTA1267-GR	(1)	2215995T
PWB	Q518	TR	2SC2235-Y(TPE6_F)	1	2211654T
PWB	Q519	TR	2SA965-Y(TPE6_F)	1	2211644T
PWB	Q602	TR	KRC103M	1	2215810T
PWB	Q602 or	TR	DTC124ES	(1)	2213160T
PWB	Q603	TR	2SC1740S-S	1	2213285T
PWB	Q603 or	TR	2SC1740S-R	(1)	2213284T
PWB	Q603 or	TR	KTC3199-GR	(1)	2215864T
PWB	Q604	TR	2SA933S-S	1	2213355T
PWB	Q604 or	TR	2SA933S-R	(1)	2213354T
PWB	Q604 or	TR	KTA1267-GR	(1)	2215995T
PWB	Q605	TR	2SA933S-S	1	2213355T

PWB	Q605 or	TR	2SA933S-R	(1)	2213354T
PWB	Q605 or	TR	KTA1267-GR	(1)	2215995T
PWB	Q606	TR	KRA103M	1	2215780T
PWB	Q606 or	TR	DTA124ES	(1)	2212600T
PWB	Q607	TR	2SA933S-S	1	2213355T
PWB	Q607 or	TR	2SA933S-R	(1)	2213354T
PWB	Q607 or	TR	KTA1267-GR	(1)	2215995T
PWB	Q608	TR	2SC1740S-S	1	2213285T
PWB	Q608 or	TR	2SC1740S-R	(1)	2213284T
PWB	Q608 or	TR	KTC3199-GR	(1)	2215864T
PWB	C302	VX C	CE04W50V 47M(VX_BLK)	1	397384707T
PWB	C501	VX C	CE04W50V 47M(VX_BLK)	1	397384707T
PWB	C503	TF C	ECQ-V50V-224J	1	374722244T
PWB	C504	VX C	CE04W16V-220M(VX_BLK)	1	397342217T

PWB	C505	CERA C	CC45CH50V-020C	1	345340201T	
PWB	C506	CERA C	CC45CH50V-070D	1	345340702T	
PWB	C514	TF C	ECQ-B50V-101J	1	374721014T	
PWB	C517	VX C	CE04W50V-10M(VX_BLK)	1	397381007T	
PWB	C519	TF C	ECQ-V50V-224J	1	374722244T	
PWB	C520	TF C	ECQ-V50V-224J	1	374722244T	
PWB	C526	VX C	CE04W50V-10M(VX_BLK)	1	397381007T	
PWB	C527	VX C	CE04W50V-1M(VX_BLK)	1	397380107T	
PWB	C528	VX C	CE04W50V-10M(VX_BLK)	1	397381007T	
PWB	C601	VR C	CE04W50V-10M(VR)	1	394681007T	
PWB	C602	VR C	CE04W50V-10M(VR)	1	394681007T	
PWB	C603	VR C	CE04W16V-470M(VR)	1	394644717T	
PWB	C603 or	VX C	CE04W16V-470M(VX_BLK)	(1)	397344717T	
PWB	C604	VR C	CE04W35V-33M(VR)	1	394663307T	
PWB	C604 or	ELECT C	CE04W35V-33M	(1)	354763309T	
PWB	C905	ELECT C	CE62W63V-5600M	1	3504399	
PWB	C906	ELECT C	CE62W63V-5600M	1	3504399	
PWB	C909	VR C	CE04W50V-22M(VR)	1	394682207T	
PWB	C950	TF C	ECQ-V50V-104J	1	374721044T	
PWB	C951	VR C	CE04W16V-220M(VR)	1	394642217T	
PWB	C952	VR C	CE04W16V-220M(VR)	1	394642217T	
PWB	C955	TF C	ECQ-B50V-223J	1	374722234T	
PWB	R301	CARBON R	R16J-1K	1	417341024T	
PWB	R302	VARI R	N17RGL20KB15M	1	5151508	
PWB	R303	CARBON R	R16J-47K	1	417344734T	
PWB	R304	CARBON R	R16J-27K	1	417342734T	
PWB	R305	CARBON R	R16J-33K	1	417343334T	
PWB	R306	CARBON R	R16J-47K	1	417344734T	
PWB	R307	CARBON R	R16J-2.2K	1	417342224T	
PWB	R501	CARBON R	R16J-1K	1	417341024T	
PWB	R502	CARBON R	R16J-47K	1	417344734T	
PWB	R503	CARBON R	R16J-5.6K	1	417345624T	
PWB	R504	CARBON R	R16J-2.2K	1	417342224T	
PWB	R505	NF CARBON R	R25J-1.0K	1	415471024T	!
PWB	R506	NF CARBON R	R25J-1.0K	1	415471024T	!
PWB	R507	CARBON R	R16J-33K	1	417343334T	
PWB	R508	NF CARBON R	R25J-47	1	415474704T	!

PWB	R509	CARBON R	R16J-1K	1	417341024T	
PWB	R510	CARBON R	R16J-100K	1	417341044T	
PWB	R511	NF CARBON R	R25J-82	1	415478204T	!
PWB	R512	NF CARBON R	R25J-68	1	415476804T	!
PWB	R513	NF CARBON R	R25J-82	1	415478204T	!
PWB	R514	NF CARBON R	R25J-82	1	415478204T	!
PWB	R515	CARBON R	R16J-12K	1	417341234T	
PWB	R516	CARBON R	R16J-12K	1	417341234T	
PWB	R517	CARBON R	R16J-3.3K	1	417343324T	
PWB	R521	CARBON R	R16J-220	1	417342214T	
PWB	R522	CARBON R	R16J-220	1	417342214T	
PWB	R526	METAL O R	RS1/2WBJ-82	1	443528204T	
PWB	R527	CARBON R	R16J-270	1	417342714T	
PWB	R528	METAL O R	RS1/2WBJ-390	1	443523914T	

PWB	R531	METAL PR	RF-5EGKR22	1	4000201
PWB	R531 or	METAL P R	RGC55C 0.22 K	(1)	4000157
PWB	R531 or	METAL PR	RGC55 0.22	(1)	4000132
PWB	R531 or	METAL PR	MPR5W+5W 0R22	(1)	4000233
PWB	R531 or	METAL P R	RF-5EGPJR22	(1)	4000244
PWB	R533	METAL R	RNU1WCJ-3.3	1	453630334T
PWB	R541	CARBON R	R16J-820	1	417348214T
PWB	R542	CARBON R	R16J-150	1	417341514T
PWB	R543	CARBON R	R16J-180	1	417341814T
PWB	R544	TRIM R	N06HR100BC	1	5210359T
PWB	R544 or	TRIM R	N06HR100BC	(1)	5210399T
PWB	R601	CARBON R	R16J-5.6K	1	417345624T
PWB	R602	CARBON R	R16J-100K	1	417341044T
PWB	R603	CARBON R	R16J-150K	1	417341544T
PWB	R604	CARBON R	R16J-180	1	417341814T
PWB	R605	CARBON R	R16J-22	1	417342204T
PWB	R609	CARBON R	R16J-39K	1	417343934T
PWB	R610	CARBON R	R16J-560K	1	417345644T
PWB	R611	CARBON R	R16J-820K	1	417348244T
PWB	R612	CARBON R	R16J-39K	1	417343934T
PWB	R613	CARBON R	R16J-470K	1	417344744T
PWB	R614	CARBON R	R16J-120K	1	417341244T
PWB	R615	CARBON R	R16J-22K	1	417342234T
PWB	R616	CARBON R	R16J-100K	1	417341044T
PWB	R617	CARBON R	R16J-1K	1	417341024T
PWB	R619	CARBON R	R16J-22K	1	417342234T
PWB	R620	CARBON R	R16J-100K	1	417341044T
PWB	R621	CARBON R	R16J-1K	1	417341024T
PWB	R622	CARBON R	R16J-10K	1	417341034T
PWB	R623	CARBON R	R16J-100K	1	417341044T
PWB	R624	CARBON R	R16J-100K	1	417341044T
PWB	R625	CARBON R	R16J-180K	1	417341844T
PWB	R626	CARBON R	R16J-2.2M	1	417342254T
PWB	R627	CARBON R	R16J-680K	1	417346844T
PWB	R628	CARBON R	R16J-330K	1	417343344T
PWB	R651	METAL O R	RS1/2WBJ-12K	1	443521234T
PWB	R901	METAL O R	RS1WBJ-820	1	443628214T

PWB	R902	METAL O R	RS1WBJ-820	1	443628214T	
PWB	R903	CARBON R	R16J-10K	1	417341034T	
PWB	R904	METAL O R	RS1/2WBJ-1K	1	443521024T	
PWB	R951	METAL O R	RS2WBJ-3.3K	1	441723324F	
PWB	R952	METAL O R	RS2WBJ-3.3K	1	441723324F	
PWB	F901A	FUSE HOL	NSCT-1P2506	1	25052609T	!
PWB	F901Aor	FUSE HOL	NSCT-1P2031	(1)	25052133T	!
PWB	F901B	FUSE HOL	NSCT-1P2506	1	25052609T	!
PWB	F901Bor	FUSE HOL	NSCT-1P2031	(1)	25052133T	!
PWB	JL535A	SOCKET AS	NSAS-2P1852	1	2009991188UL	
PWB	P301	PIN JACK	NPJ-1PDB556	1	25045774	
PWB	P301 or	PIN JACK	NPJ-1PDB581	(1)	25045801	
PWB	P531	PLUG	NPLG-2P29	1	25055038	
PWB	P631	PLUG	NPLG-2P29	1	25055038	

PWB	P632A	PLUG	NPLG-3P131	1	25055147	
PWB	P901A	PLUG	NPLG-4P151	1	25055167	
PWB	P902A	PLUG	NPLG-2P632	1	25055676	!
PWB	P903A	SOCKET AS	NSAS-7P1834	1	20099900740UL	
PWB	P911	WS CLAMP	CB-71683(L=50)	1	260261	
PWB	E801	RETAINER	KANAGU(EARTH)	1	27141059	

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