

**Service
Service
Service****Service Manual****TABLE OF CONTENTS**

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Published by KC-ET0227 Service Audio Printed in The Netherlands Subject to modification

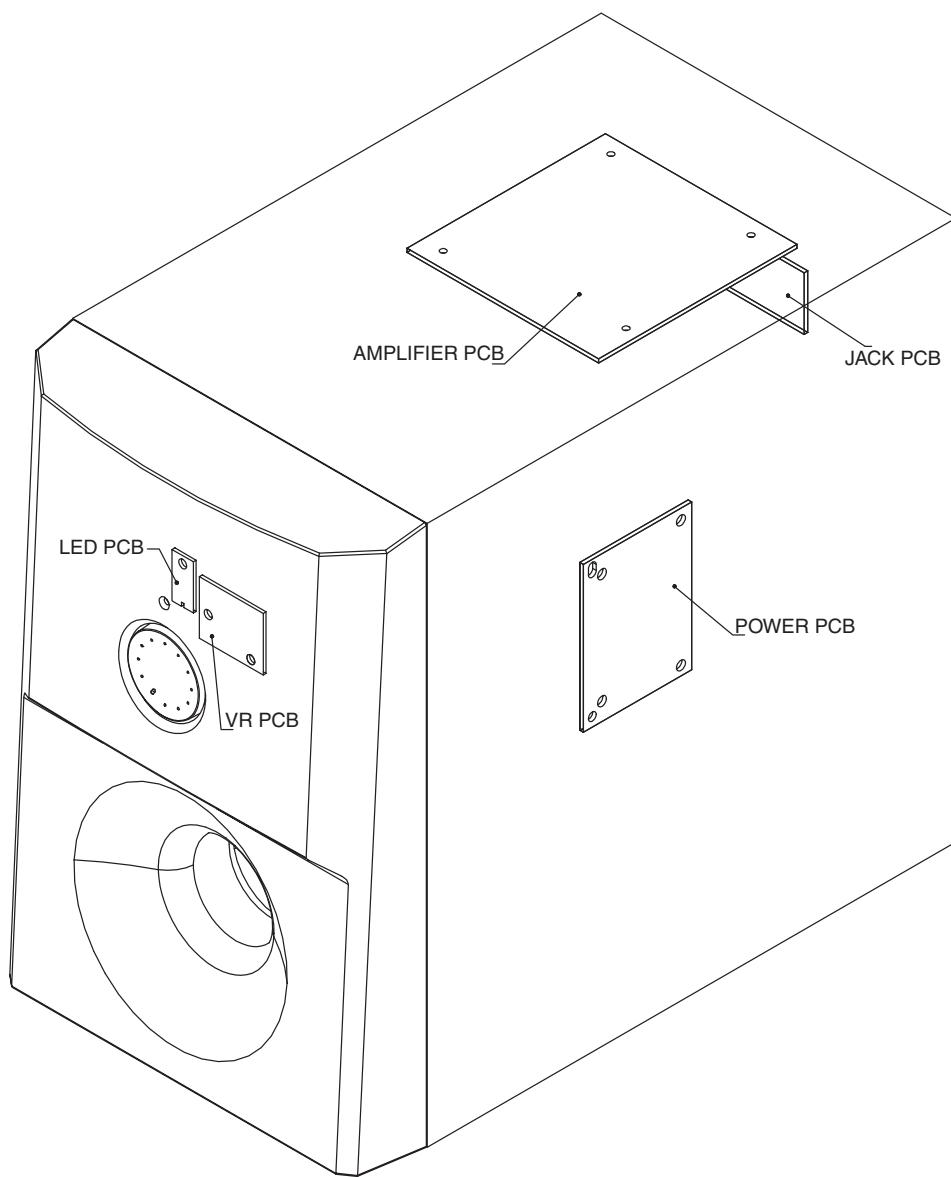
Version 1.0



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PHILIPS

LOCATION OF SW3700 PC BOARDS

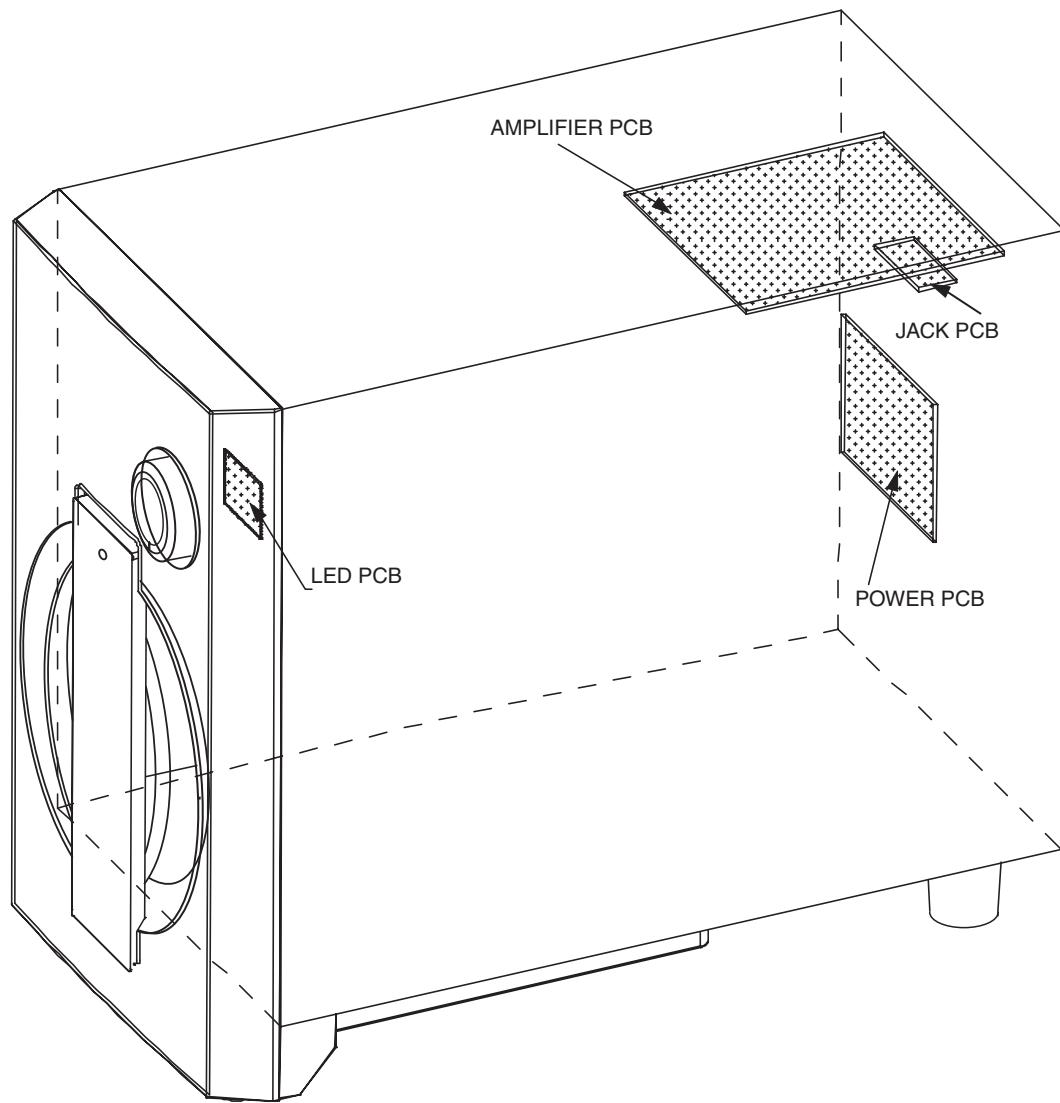


SPECIFICATIONS

SUBWOOFER

Subwoofer (not magnetically shielded design).....	6.5"
Output Power.....	50W (4Ω,DIN)
THD (Total Harmonic Distortion)	10% at 55 Hz
Reproduction Frequency Response.....	40 Hz-150 Hz
Phase Switch.....	0°,180°
Input Sensitivity (Subwoofer In).....	500 mVrms
AC Power	120V / 60 Hz
power Consumption.....	32 W (at 1/8 Rated Power)
Dimensions (w x h x d).....	200 mm x 310mm x 350 mm
Weight.....	6.8 Kg

LOCATION OF SW3800 PC BOARDS

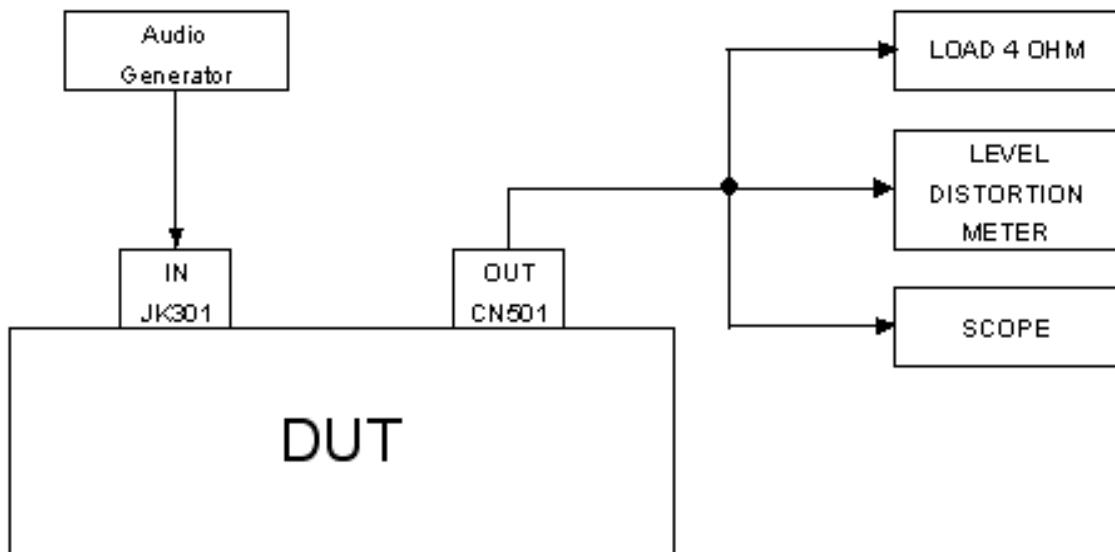


SPECIFICATIONS

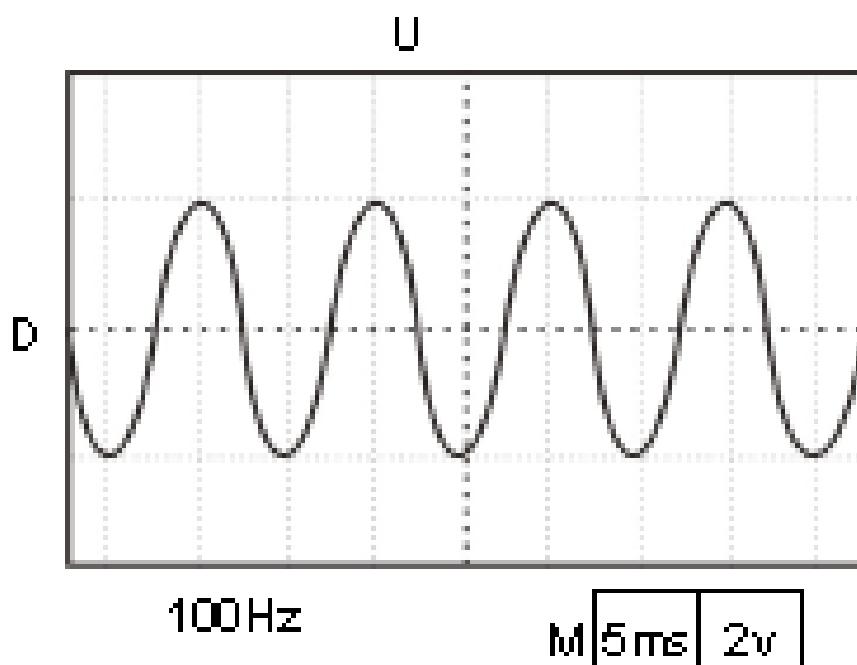
SUBWOOFER

Subwoofer (not magnetically shielded design).....	6.5"
Output Power.....	1000W (4Ω,DIN)
THD (Total Harmonic Distortion)	10% at 55 Hz
Reproduction Frequency Response.....	30 Hz-140 Hz
Phase Switch.....	0°,180°
Input Sensitivity (Subwoofer In).....	200 mVrms
AC Power220 - 240V / 50 Hz
power Consumption.....	66 W (at 1/8 Rated Power)
Dimensions (w x h x d).....	.200 mm x 310mm x 350 mm
Weight.....	6.8 Kg

MEASUREMENT SETUP



Audio Test Signal



ESD & SAFETY INSTRUCTION

(GB)

WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD

(NL)

WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor elektrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(F)

ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation. Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D)

WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD). Unsorgfältige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren. Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes. Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(I)

AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cautela alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Original zustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

"After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA."

DISASSEMBLY INSTRUCTIONS

Dismantling the Grill Base & Speaker Driver

1. Place the Subwoofer Box as shown in the Picture 1

For SW3700 :

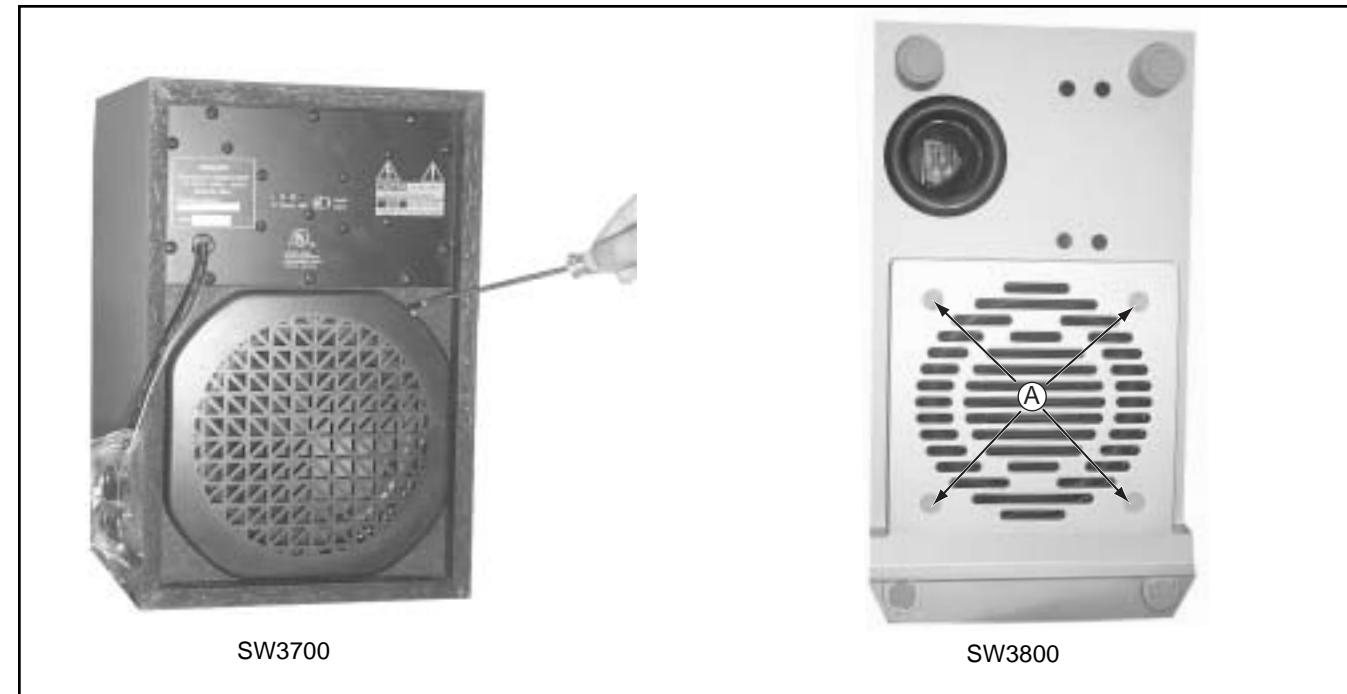
a) Use a screw driver to force open the Grill Base.

Caution: Take care the surface when take out the Grill Base of Subwoofer.

For SW3800 :

a) Peel off the 4 pads "A"

b) Loosen 4 screws at the same place to remove the grille base.



Picture 1

2. Place the Subwoofer Box as shown in the Picture 2 and loosen 4 screws "B" to remove the Speaker Driver.



Picture 2

Dismantling the Front Assembly

1. Place the Subwoofer Box as shown in the Picture 3 (Bottom view) and use a screw driver to force open the front assembly.

Caution: Do not break the bundle of wires to the front. Take care the surface when take out the front panel of subwoofer

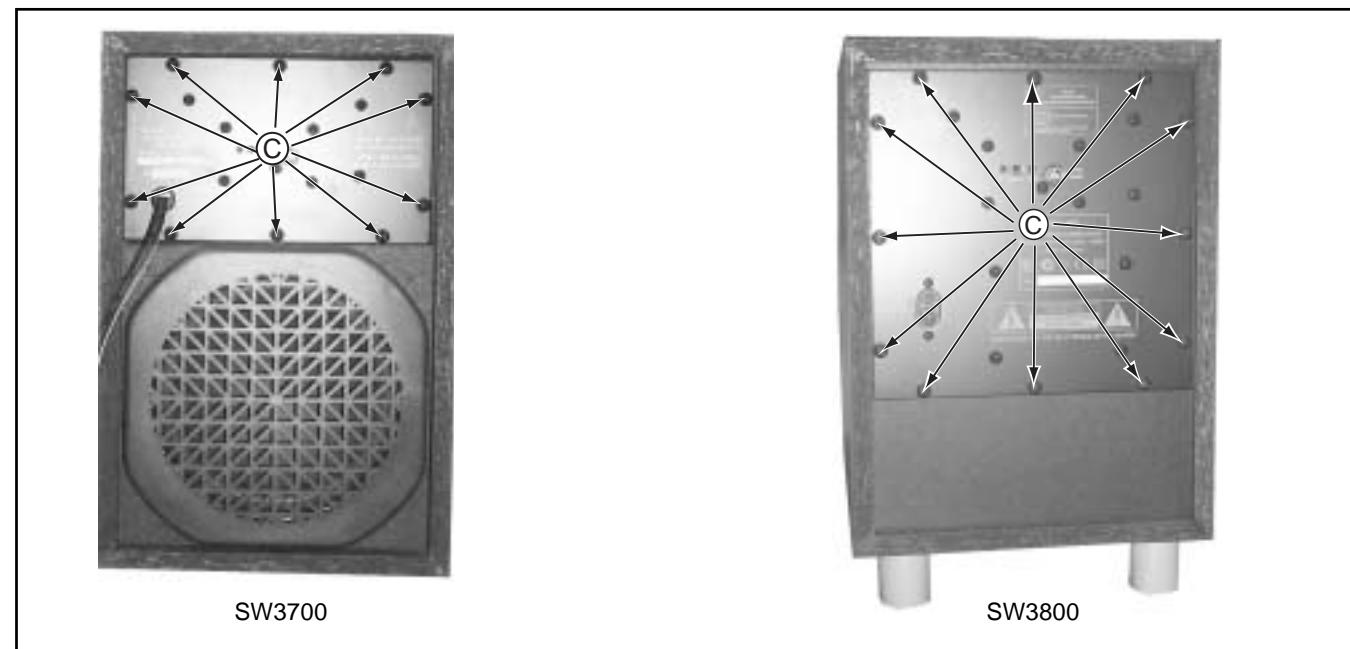


Picture 3

Dismantling the Rear assembly

1. Loosen 10 screws for SW3700 or 12 screws for SW3800 at "C" as shown in the Picture 4 (Rear View) to pull out the Printed Circuit Board assembly.

Caution: Do not break the bundle of wires to the front.



Picture 4

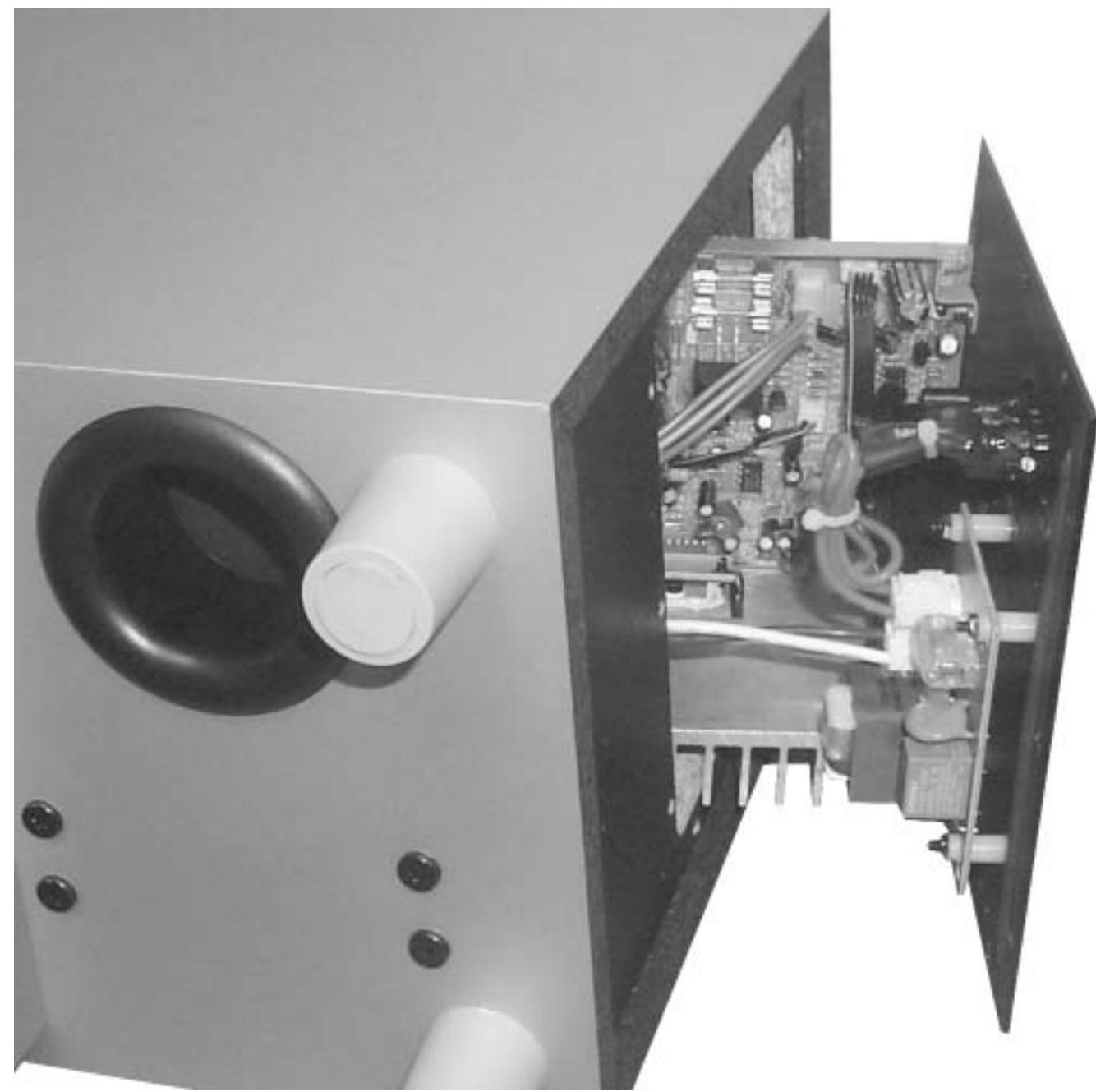
2-2

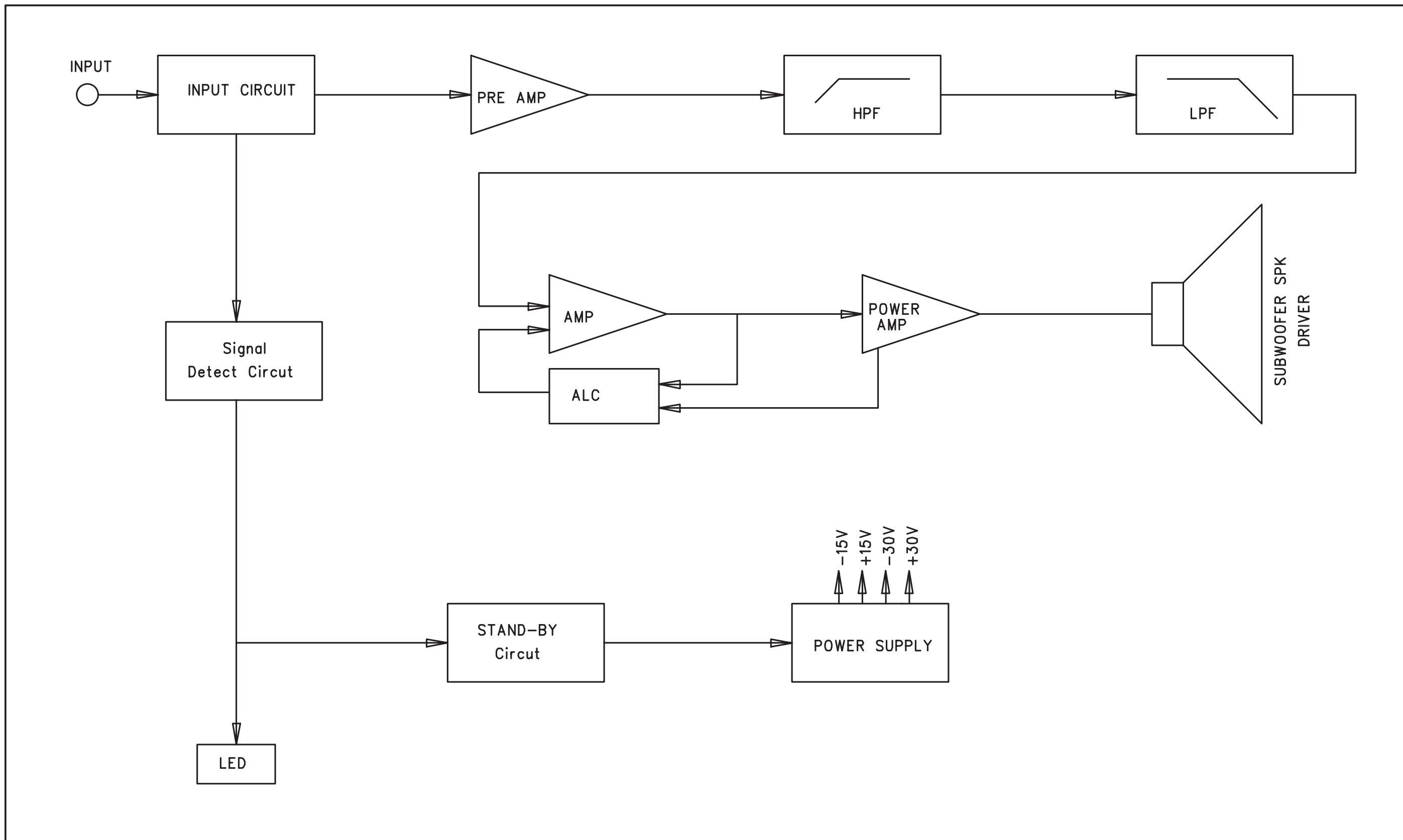
SERVICE POSITION FOR SW3700

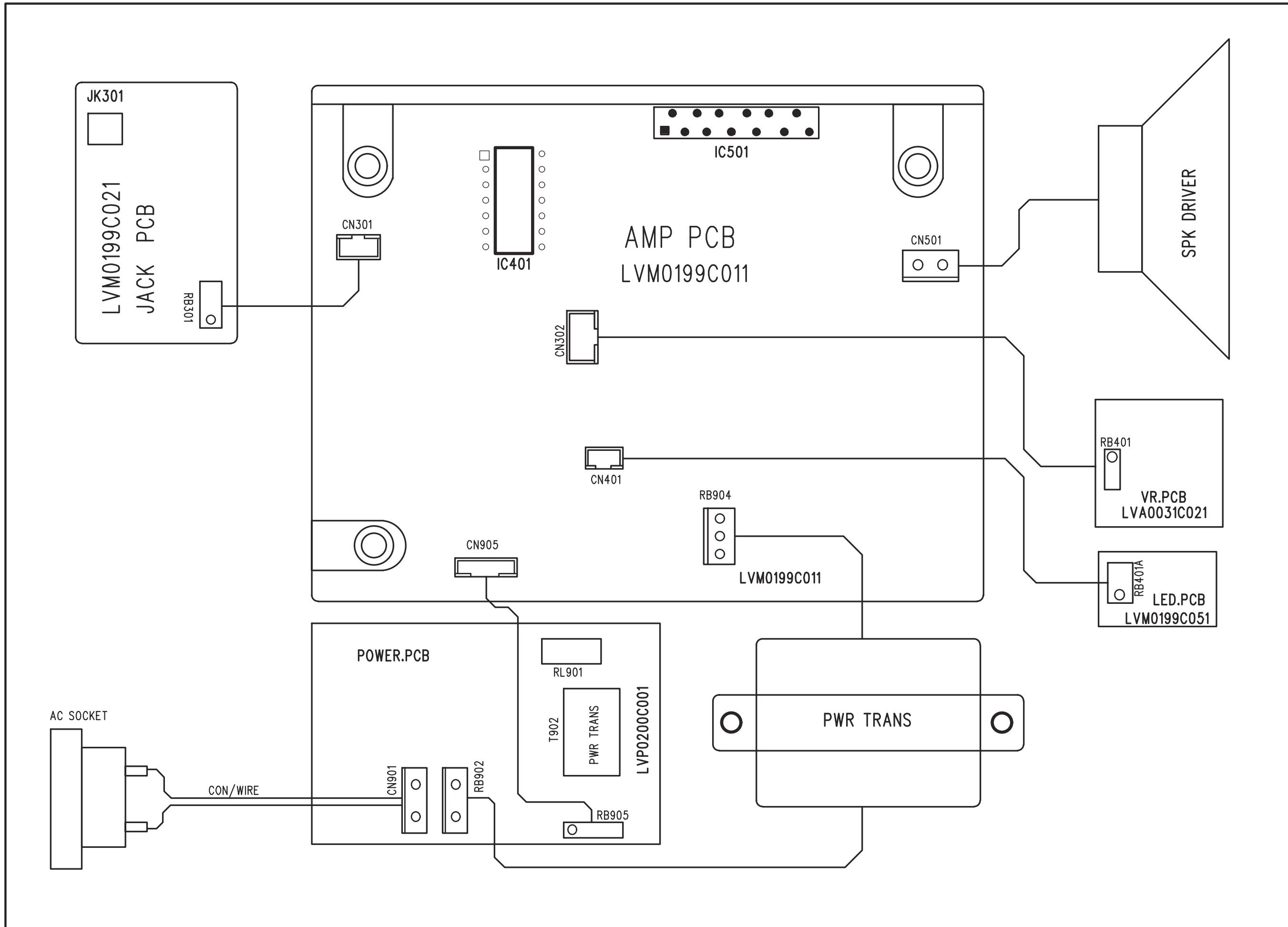


2-2

SERVICE POSITION FOR SW3800



BLOCK DIAGRAM

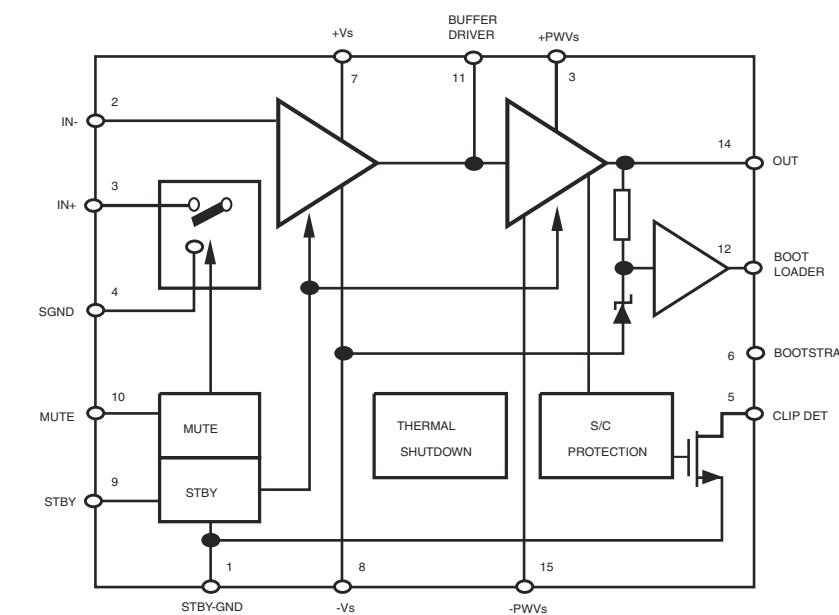
WIRING DIAGRAM

AMPLIFIER / JACK / LED BOARD

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TDA7293 INTERNAL DIAGRAM



VOLTAGES

IC501 (TDA7293)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	0V	0V	0V	0V	0.3V	13.8V	29.7V	-29.7V	15.5V	13.2V	0.6V	0V	29.7V	0V	-29.6V

IC401 (LM324N)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
VOLTAGE	0V	0V	0V	15.1V	0.4V	3V	-15.2V	0V	0V	0V	-14.9V	0V	0V	0V	

IC301 (4558D)

PIN NO.	1	2	3	4	5	6	7	8
VOLTAGE	1.4V	4.9V	1V	0V	4.4V	4.9V	3.9V	8.8V

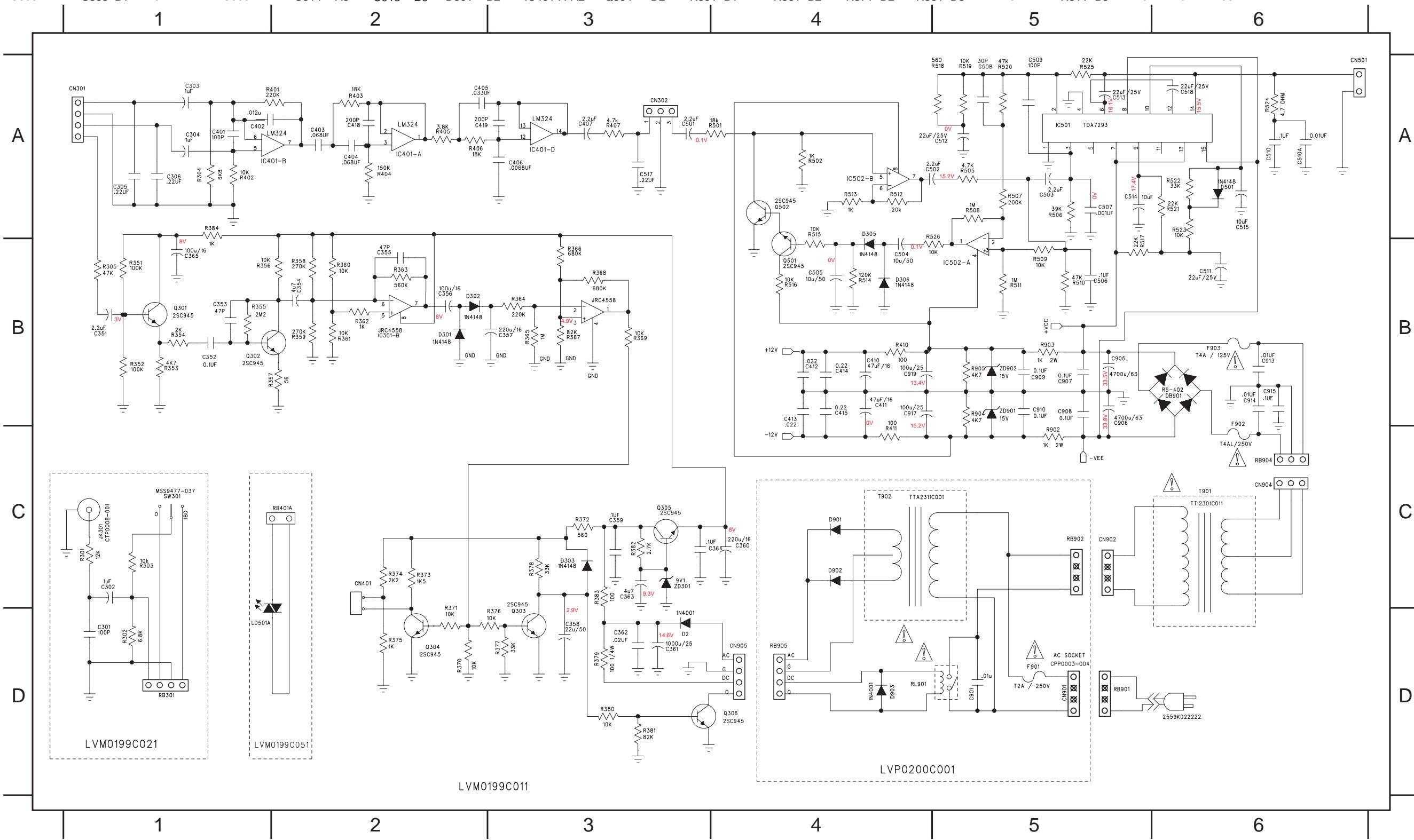
IC502 (4558D)

PIN NO.	1	2	3	4	5	6	7	8
VOLTAGE	0V	0V	0V	-15V	0V	0V	0V	15.2V

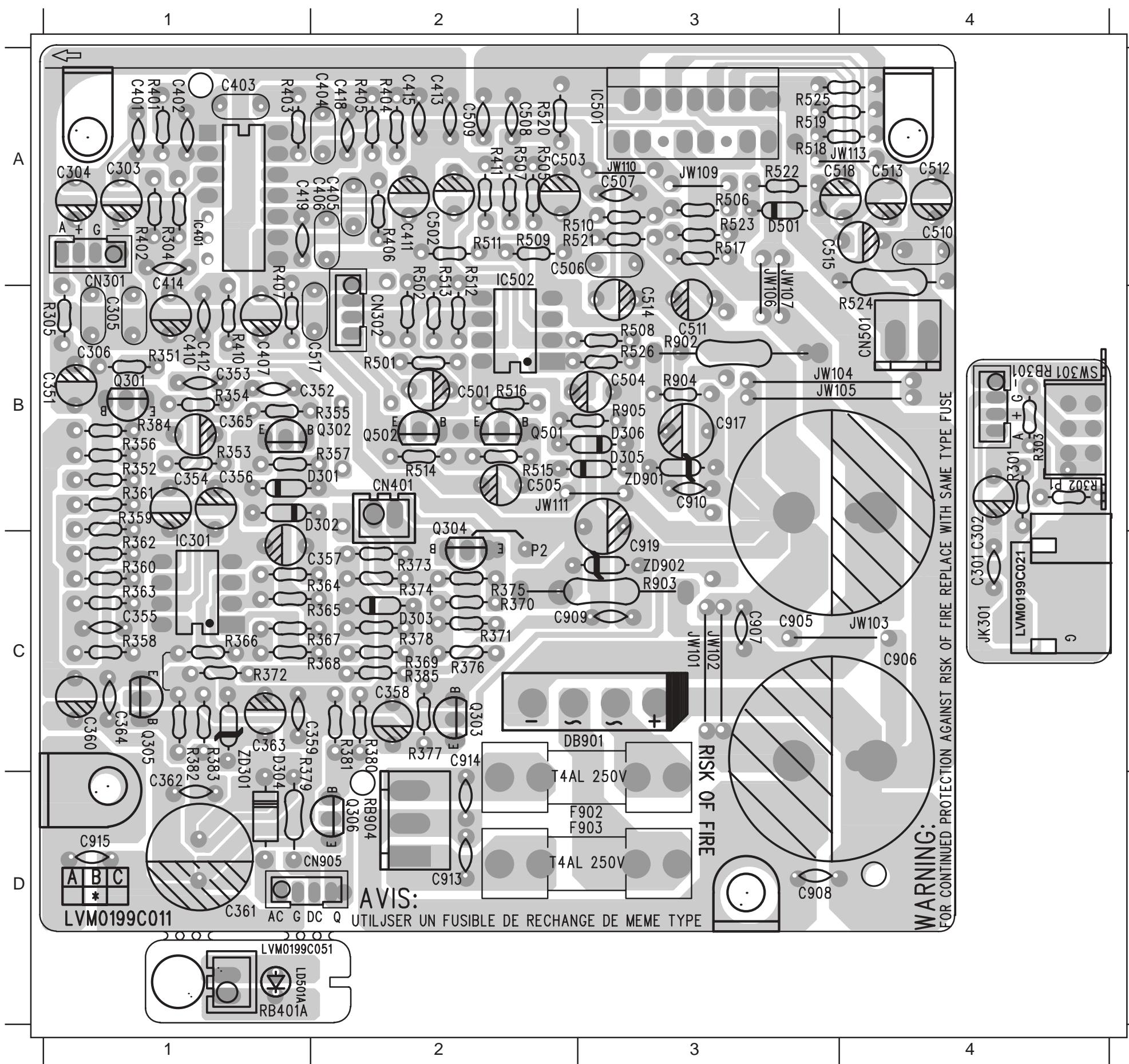
Location	Pin	B	C	E
Q301		0V	0V	0V
Q302		0V	0V	0V
Q303		0V	0V	0V
Q304		0.6V	0.7V	0V
Q305		0V	0V	0V
Q306		0V	0.4V	0V
Q501		0V	15.3V	0V
Q502		0V	0V	0V
Q506		0V	0V	0V

CIRCUIT DIAGRAM

C301 D1	C356 B2	C401 A1	C413 B4	C506 B5	C515 A6	C914 B6	D302 B2	IC401-B A1	Q305 C3	R352 B1	R362 B2	R372 C3	R382 C3	R411 C4	R512 A4	R522 A6	RB401 C2
C302 C1	C358 D3	C402 A1	C414 B4	C507 A5	C517 B3	C915 B6	D303 C3	IC401-D B3	Q306 D4	R353 B1	R363 B2	R373 C2	R383 C3	R407 B3	R513 A4	R523 A6	RB904 C6
C303 A1	C357 B3	C403 A2	C415 B4	C508 A5	C518 A6	C917 B4	D305 A4	IC501 A5	Q501 B4	R354 B1	R364 B3	R374 C2	R384 A1	R502 A4	R514 B4	R524 A6	SW301C1
C304 A1	C359 C3	C404 A2	C418 A2	C509 A5	C905 B5	C919 B4	D306 B4	IC502-A B5	Q502 A4	R355 B1	R365 B3	R375 D2	R401 A1	R505 A5	R515 A4	R525 A5	ZD301 C3
C305 A1	C360 C4	C405 A2	C419 A2	C510 A6	C906 B5	CN301 A1	D501 A6	JK301 C1	R301 C1	R356 B1	R366 B3	R376 D3	R402 A1	R506 A5	R516 B4	R526 A5	ZD901 B5
C306 A1	C361 D3	C406 B3	C501 B3	C510A A6	C907 B5	CN302 B3	DB901 B6	LD501 D2	R302 D1	R357 B2	R367 B3	R377 D3	R403 A2	R507 A5	R517 B5	R902 C5	ZD902 B5
C354 B2	C362 D3	C407 B3	C502 A4	C511 B6	C908 B5	CN401 C2	F902 C6	Q301 B1	R303 C1	R358 B2	R368 B3	R378 C3	R404 A2	R508 A5	R518 A5	R903 B5	
C351 B1	C363 C3	C410 B4	C503 A5	C512 A5	C909 B5	CN501 A6	F903 B6	Q302 B1	R304 A1	R359 B2	R369 B3	R379 D3	R405 A2	R509 B5	R519 A5	R904 B5	
C353 B1	C364 C4	C411 B4	C504 B4	C513 A5	C910 B5	CN905 D4	IC301-B B2	Q303 D3	R305 B1	R360 B2	R370 D2	R380 D3	R406 A2	R510 B5	R520 A5	R905 B5	
C355 B2	C365 B1	C412 B4	C505 B4	C514 A5	C913 B6	D301 B2	IC401-A A2	Q304 D2	R351 B1	R361 B2	R371 D2	R381 D3	R410 B4	R511 B5	R521 A6	RB301 D1	



PCB LAYOUT VIEW



C301	C4	CN401	B2	R373	C2
C302	B4	CN501	B4	R374	C2
C303	A1	CN511	D3	R375	C2
C304	A1	CN905	D2	R376	C2
C305	B1	D301	B1	R377	C2
C306	B1	D302	B1	R378	C2
C351	B1	D303	C2	R379	D1
C352	B1	D304	D1	R380	C2
C353	B1	D305	B3	R381	C2
C354	B1	D306	B3	R382	C1
C355	C1	D501	A3	R383	C1
C356	B1	DB901	C3	R384	B1
C357	C1	F902	D3	R385	C2
C358	C2	F903	D3	R401	A1
C359	C1	IC301	C1	R402	A1
C360	C1	IC401	A1	R403	A1
C361	D1	IC501	A3	R404	A2
C362	D1	IC502	B2	R405	A2
C363	C1	JK301	C4	R406	A2
C364	C1	JW101	C3	R407	B1
C365	B1	JW102	C3	R410	B1
C401	A1	JW103	C4	R411	A2
C402	A1	JW104	B3	R501	B2
C403	A1	JW105	B3	R502	B2
C404	A2	JW106	B3	R505	A2
C405	A2	JW107	B3	R506	A3
C406	A2	JW109	A3	R507	A2
C407	B1	JW110	A3	R508	B3
C410	B1	JW111	B3	R509	A2
C411	A2	JW113	A4	R510	A3
C412	B1	JW114	C3	R511	A2
C413	A2	LD501A	D1	R512	B2
C414	A1	Q301	B1	R513	B2
C415	A2	Q302	B1	R514	B2
C418	A2	Q303	C2	R515	B2
C419	A1	Q304	C2	R516	B2
C501	B2	Q305	C1	R517	A3
C502	A2	Q306	D2	R518	A4
C503	A2	Q501	B2	R519	A4
C504	B3	Q502	B2	R520	A2
C505	B2	R301	B4	R521	A3
C506	A3	R302	B4	R522	A3
C507	A3	R303	B4	R523	A3
C508	A2	R304	A1	R524	B4
C509	A2	R305	B1	R525	A4
C510	A4	R351	B1	R526	B3
C511	B3	R352	B1	R902	B3
C512	A4	R353	B1	R903	C3
C513	A4	R354	B1	R904	B3
C514	B3	R355	B1	R905	B3
C515	A4	R356	B1	RB301	B4
C517	B2	R357	B1	RB401	D2
C518	A4	R358	C1	RB401A	D1
C905	C3	R359	B1	RB904	D2
C906	C4	R360	C1	SW301	B4
C907	C3	R361	B1	ZD301	C1
C908	D3	R362	C1	ZD901	B3
C909	C3	R363	C1	ZD902	C3
C910	B3	R364	C1		
C913	D2	R365	C1		
C914	C2	R366	C1		
C915	D1	R367	C1		
C917	B3	R368	C1		
C919	C3	R369	C2		
CN301	A1	R371	C2		
CN302	B2	R372	C1		

ELECTRICAL PARTS LIST - AMPLIFIER, JACK AND LED BOARD**MISCELLANEOUS**

F902	4822 070 34002	△ FUSE T4A 250V SLOW	/00S
F902	9965 000 14288	△ FUSE T4A 250V SLOW	/17S
F903	4822 070 34002	△ FUSE T4A 250V SLOW	/00S
F903	9965 000 14288	△ FUSE T4A 250V SLOW	/17S
JK301	4822 267 41238	JACK 1T GREEN	
SW301	4822 277 11821	SLIDE SWITCH	

CAPACITORS

C301	4822 122 33293	100pF 5% 50V
C302	4822 124 21913	1uF 20% 63V
C303	4822 124 21913	1uF 20% 63V
C304	4822 124 21913	1uF 20% 63V
C305	9965 000 08287	0,22uF 100V 5%
C306	9965 000 08287	0,22uF 100V 5%
C351	4822 124 22652	2,2uF 20% 50V
C352	2038 554 00065	100nF +80/-20% Y5V 50V
C353	9965 000 12614	47pF 50V 5%
C354	9965 000 12522	4,7uF 50V 20%
C355	9965 000 12614	47pF 50V 5%
C356	9965 000 12559	100uF 16V 20%
C357	9965 000 12558	220uF 16V 20%
C358	9965 000 14298	22uF 50V 20%

RESISTORS

C359	2038 554 00065	100nF +80/-20% Y5V 50V
C360	9965 000 12558	220uF 16V 20%
C361	9965 000 12530	1000uF 25V 20% D=10
C362	9965 000 14299	0,02uF 50V + 80-20%
C363	9965 000 12522	4,7uF 50V 20%
C364	2038 554 00065	100nF +80/-20% Y5V 50V
C365	4822 124 23056	47uF 20% 16V
C401	4822 122 33293	100pF 5% 50V
C402	4822 121 41935	12nF 5% 250V
C403	5322 121 42662	68nF 5% 250V
C404	5322 121 42662	68nF 5% 250V
C405	5322 121 42489	33nF 5% 250V
C406	4822 121 42077	6,8nF 10% 400V
C407	4822 124 21913	1uF 20% 63V
C410	4822 124 23056	47uF 20% 16V
C411	4822 124 23056	47uF 20% 16V
C412	4822 122 30103	22nF 80% 63V
C413	4822 122 30103	22nF 80% 63V
C414	9965 000 12613	0,22uF 50V +80-20%
C415	9965 000 12613	0,22uF 50V +80-20%
C418	9965 000 14300	200pF 50V 10%
C419	9965 000 14300	200pF 50V 10%
C501	4822 124 22652	2,2uF 20% 50V
C502	4822 124 22652	2,2uF 20% 50V
C503	4822 124 22652	2,2uF 20% 50V
C504	4822 124 40248	10uF 20% 63V
C505	4822 124 40248	10uF 20% 63V
C506	5322 121 42578	100nF 5% 250V
C507	9965 000 14301	0,001uF 100V 5%
C508	9965 000 14302	30pF 50V 5%

ELECTRICAL PARTS LIST - AMPLIFIER, JACK AND LED BOARD**RESISTORS**

C509	4822 122 33293	100pF 5% 50V
C510	5322 121 42578	100nF 5% 250V
C511	5322 124 41945	22uF 20% 35V
C512	5322 124 41945	22uF 20% 35V
C513	5322 124 41945	22uF 20% 35V
C514	4822 124 40248	10uF 20% 63V
C515	4822 124 40248	10uF 20% 63V
C517	9965 000 08287	0,22uF 100V 5%
C518	5322 124 41945	22uF 20% 35V
C905	9965 000 14303	4700uF 63V 20%
C906	9965 000 14303	4700uF 63V 20%
C907	2038 554 00065	100nF +80/-20% Y5V 50V
C908	2038 554 00065	100nF +80/-20% Y5V 50V
C909	2038 554 00065	100nF +80/-20% Y5V 50V
C910	2038 554 00065	100nF +80/-20% Y5V 50V
C913	9965 000 11041	0,01uF 500V 20%
C914	9965 000 11041	0,01uF 500V 20%
C915	2038 554 00065	100nF +80/-20% Y5V 50V
C917	4822 124 40207	100uF 20% 25V
C919	4822 124 40207	100uF 20% 25V

DIODES

R376	4822 050 21003	10K 1% 0,6W
R377	4822 050 23303	33K 1% 0,6W
R378	4822 050 23303	33K 1% 0,6W
R379	9965 000 14201	100R 1/4W 5% CF
R380	4822 050 21003	10K 1% 0,6W
R381	9965 000 12628	82K 1/6W 5%
R382	9965 000 09729	820R 1/6W 5% CF
R383	4822 050 21001	100R 1% 0,6W
R384	9965 000 12519	1K 1/6W 5% CF
R401	9965 000 12631	180K 1/6W 5%
R402	4822 050 21003	10K 1% 0,6W
R403	9965 000 08285	18K 1/6W 5% CF
R404	4822 050 21504	150K 1% 0,6W
R405	9965 000 09724	3,9K 1/6W 5% CF
R406	9965 000 08285	18K 1/6W 5% CF
R407	9965 000 09725	4,7K 1/6W 5% CF
R410	4822 050 21001	100R 1% 0,6W
R411	4822 050 21001	100R 1% 0,6W
R501	9965 000 08285	18K 1/6W 5% CF
R502	9965 000 12519	1K 1/6W 5% CF
R505	9965 000 09725	4,7K 1/6W 5% CF
R506	9965 000 14307	39K 1/6W 5% CF
R507	9965 000 12561	200K 1/6W 5% CF
R508	9965 000 12626	1M 1/6W 5%
R509	4822 050 21003	10K 1% 0,6W
R510	4822 050 24703	47K 1% 0,6W
R511	9965 000 12626	1M 1/6W 5%
R512	4822 050 22203	22K 1% 0,6W
R513	9965 000 12519	1K 1/6W 5% CF
R514	9965 000 14308	120R 1/6W 5% CF
R515	4822 050 21003	10K 1% 0,6W
R516	4822 050 21003	10K 1% 0,6W
R517	4822 050 22203	22K 1% 0,6W
R518	4822 050 25601	560R 1% 0,6W
R519	4822 050 21003	10K 1% 0,6W
R520	4822 050 24703	47K 1% 0,6W
R521	4822 050 22203	22K 1% 0,6W
R522	4822 050 23303	33K 1% 0,6W
R523	4822 050 21003	10K 1% 0,6W
R524	4822 116 81753	4,7R 5% 0,5W
R525	4822 050 22203	22K 1% 0,6W
R526	4822 050 21003	10K 1% 0,6W
R902	9965 000 09718	1K 2W 5% METAL FIL
R903	9965 000 09718	1K 2W 5% METAL FIL
R904	9965 000 09725	4,7K 1/6W 5% CF
R905	9965 000 09725	4,7K 1/6W 5% CF

TRANSISTORS & INTEGRATED CIRCUITS

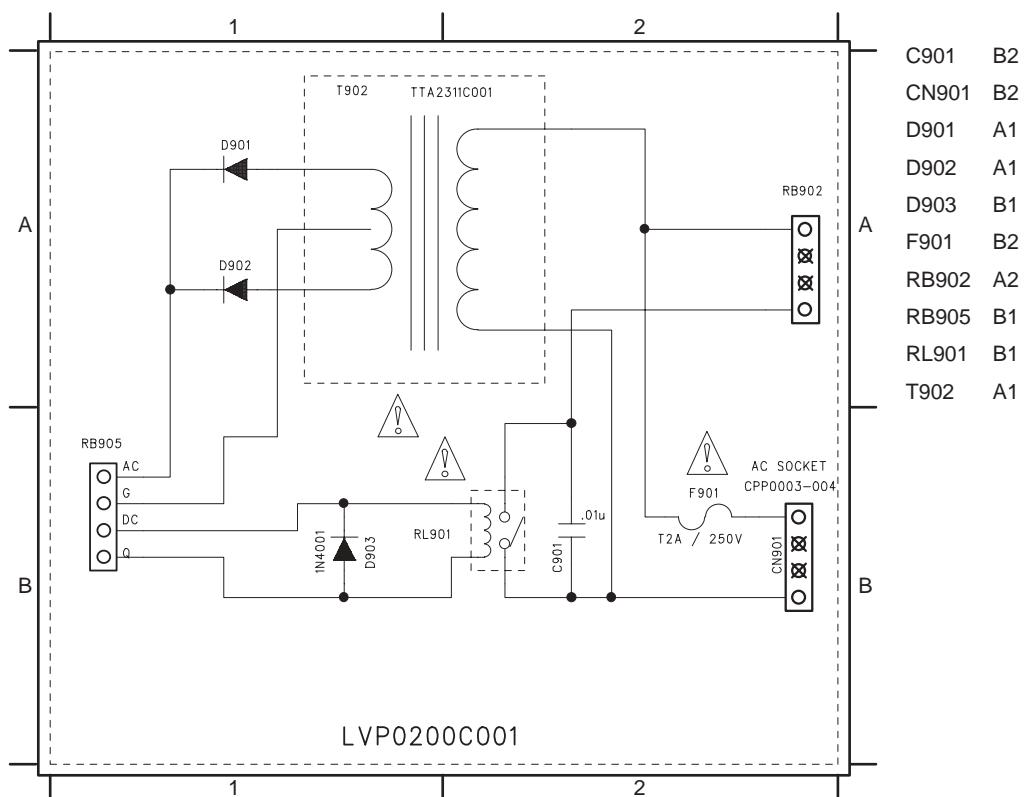
D305	4822 130 30621	1N4148
D306	4822 130 30621	1N4148
D501	4822 130 30621	1N4148
DB901	4	

POWER & VR BOARD

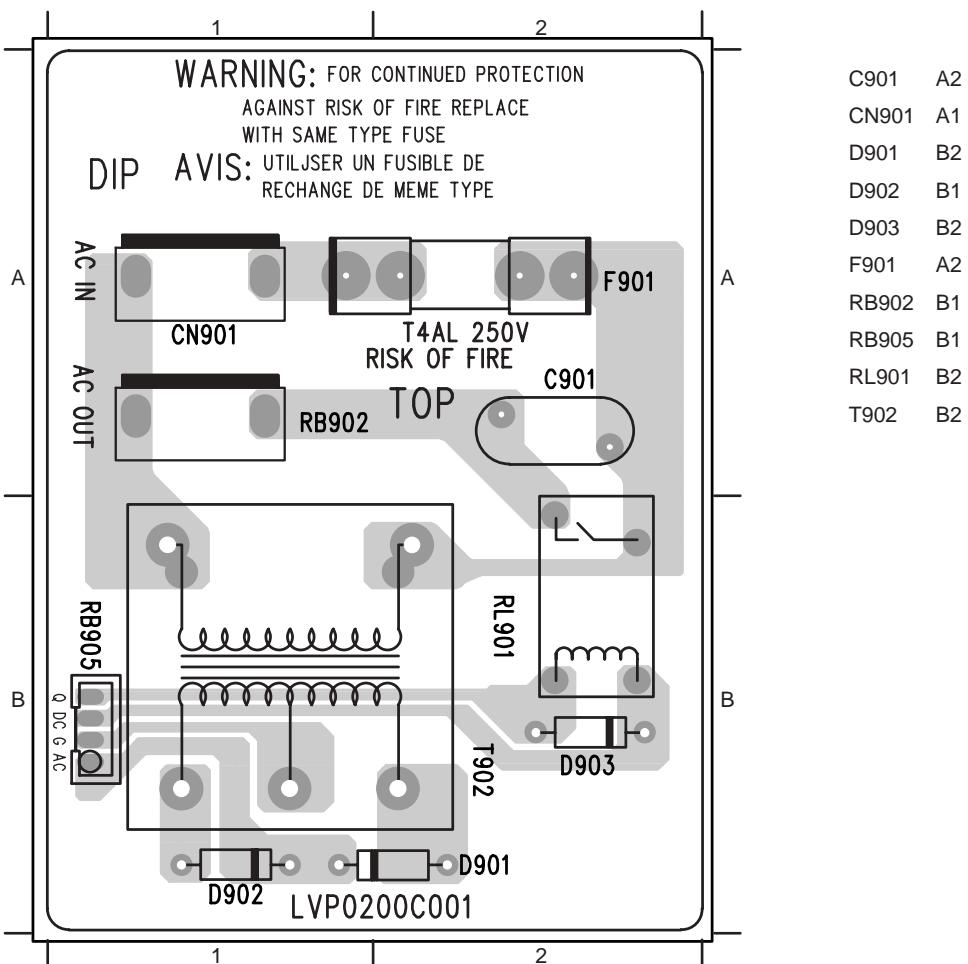
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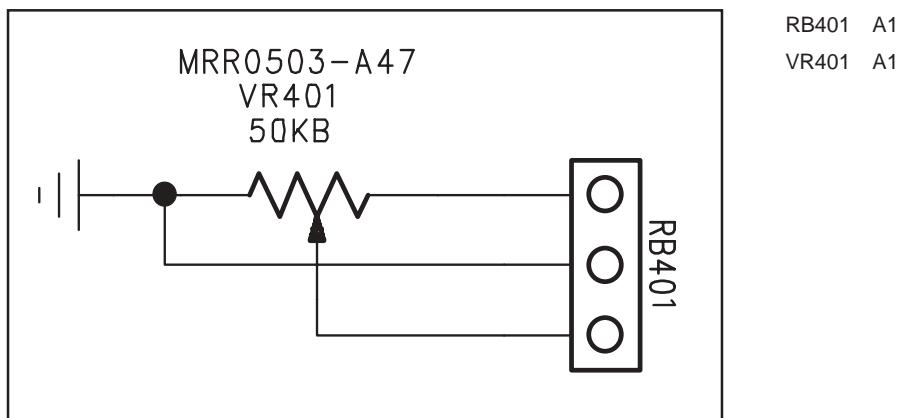
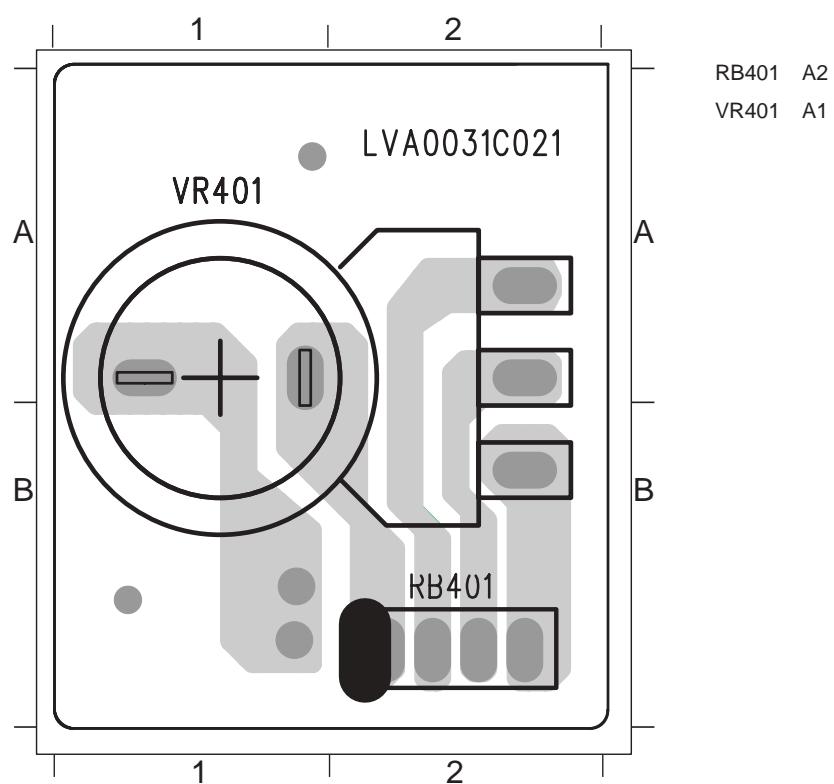
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VR PCB schematic and Layout View	5-3
Electrical Parts List	5-4

POWER SCHEMATIC DIAGRAM



POWER PCB LAYOUT VIEW



VR SCHEMATIC DIAGRAM**VR PCB LAYOUT VIEW**

ELECTRICAL PARTS LIST - POWER & VR BOARD

MISCELLANEOUS

CN901	9965 000 12636	CONNECTOR 4 PIN P=3,96MM
F901	9965 000 12638	△ FUSE T2A 250V SLOW /00S
F901	9965 000 14309	△ FUSE T2A 250V SLOW /17S
RB902	9965 000 12636	CONNECTOR 4 PIN P=3,96MM
RL901	9965 000 09708	△ RELAY GJ-SH-112DM 320R
T902	9965 000 12603	△ TRANSFORMER 230V 50HZ EI28 /00S
T902	9965 000 12602	△ TRANSFORMER 120V 60HZ EI28 /17S

CAPACITORS

C901	9965 000 12604	0,01uF 20%
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RESISTORS

VR401	9965 000 14314	CONTROL ROTARY 50KB /00S
VR401	9965 000 14310	CONTROL ROTARY 50KB /17S

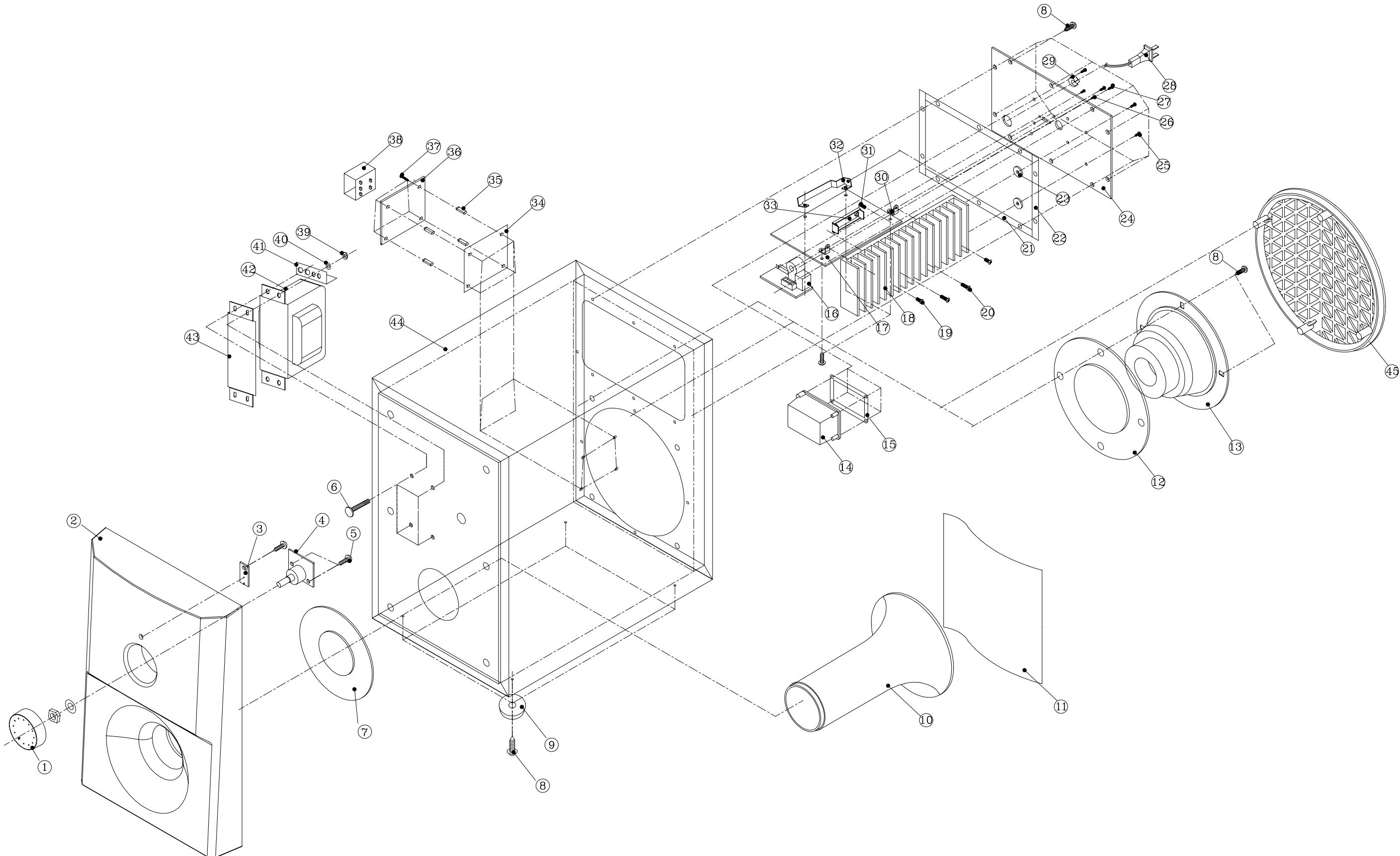
DIODES

D901	4822 130 31438	1N4001G
D902	4822 130 31438	1N4001G
D903	4822 130 31438	1N4001G

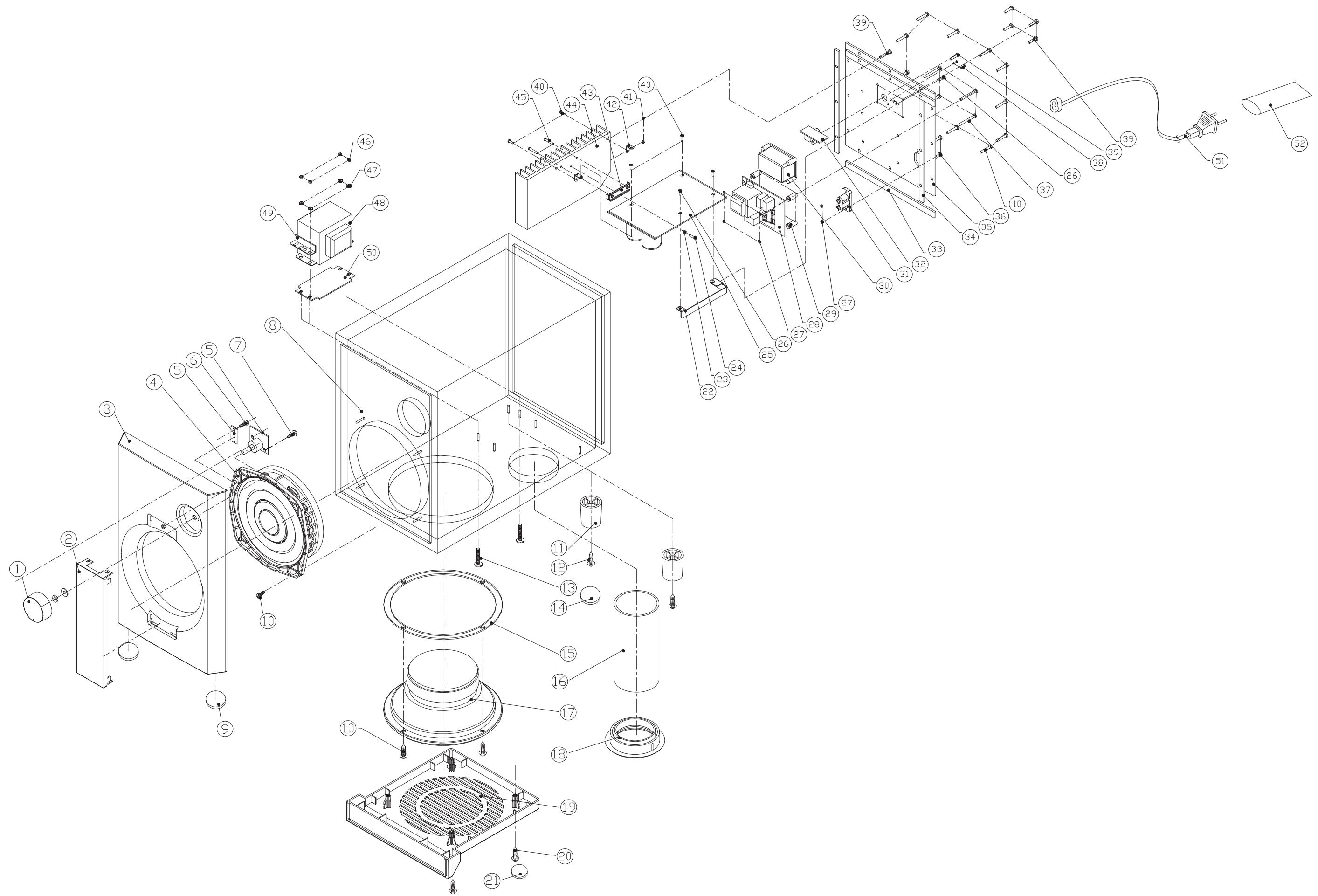
Note: Only the parts mentioned in this list are normal service spare parts.

6-1

SW3700 Exploded Drawing



SW3800 Exploded Drawing



FOR SW3700/17S ONLY**MECHANICAL PARTS LIST**

1	9965 000 14284	VOLUME KNOB
2	9965 000 14285	FRONT CAB
9	9965 000 03360	FOOT
10	9965 000 14295	PORT
11	9965 000 03365	CLOTH (185 X 185MM)
12	4822 532 13065	WASHER
13	9965 000 08278	SPEAKER DRIVER 100W 6,5 4OHM
28	9965 000 14296	△ MAINS CORD /17S
29	9965 000 07092	BUSHING
42	9965 000 14297	△ POWER TRANSFORMER
45	4822 458 10658	SPEAKER GRILLE

Note: Only the parts mentioned in this list are normal service spare parts.

FOR SW3800/00S ONLY**MECHANICAL PARTS LIST**

1	9965 000 12141	VOLUME KNOB
2	9965 000 12142	BAR TRIM (LENS)
3	9965 000 14312	FRONT CABINET
4	9965 000 12144	WOOX SPEAKER
9	9965 000 09700	FOOT
14	9965 000 09702	RUBBER PAD
15	4822 532 13065	WASHER
17	9965 000 08278	SPEAKER DRIVER 100W 6,5" 4OHM
31	9965 000 12443	△ MAINS SOCKET
48	9965 000 14313	△ POWER TRANSFORMER
51	9965 000 12820	△ MAINS CORD

Note: Only the parts mentioned in this list are normal service spare parts.

SCREW LIST

5	D3 x 6
6	M4 x 25
8	D3,5 x 14
19	D3 x 8
20	M3 x 14
25	D3 x 10
26	M2 x 6
27	D3 x 8
31	D3 x 10
37	D3 x 22

SCREW LIST

6	D3 x 6
7	D3 x 8
10	D3,5 x 16
12	D4 x 28
13	M4 x 25
20	D3,5 x 28
24	D3 x 10
26	D3 x 8
36	M3 x 12
37	M3 x 22
38	M2 x 6
39	D3 x 10
40	M3 x 8
45	M3 x 14