

# Wharfedale Pro

## Service Manual : SVP-12PM Professional Speaker Enclosures

SVP-12PM

### ★ TABLE OF CONTENTS

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SPECIFICATIONS-----	2
SCHEMATIC DIAGRAM-----	3
ASSEMBLY PART LIST-----	4
ELECTRONICS PARTS LIST-----	5
SCHEMATIC DIAGRAM(AMP)-----	6
ASSEMBLY PART LIST(AMP)-----	8
ELECTRONICS PARTS LIST(AMP)-----	9

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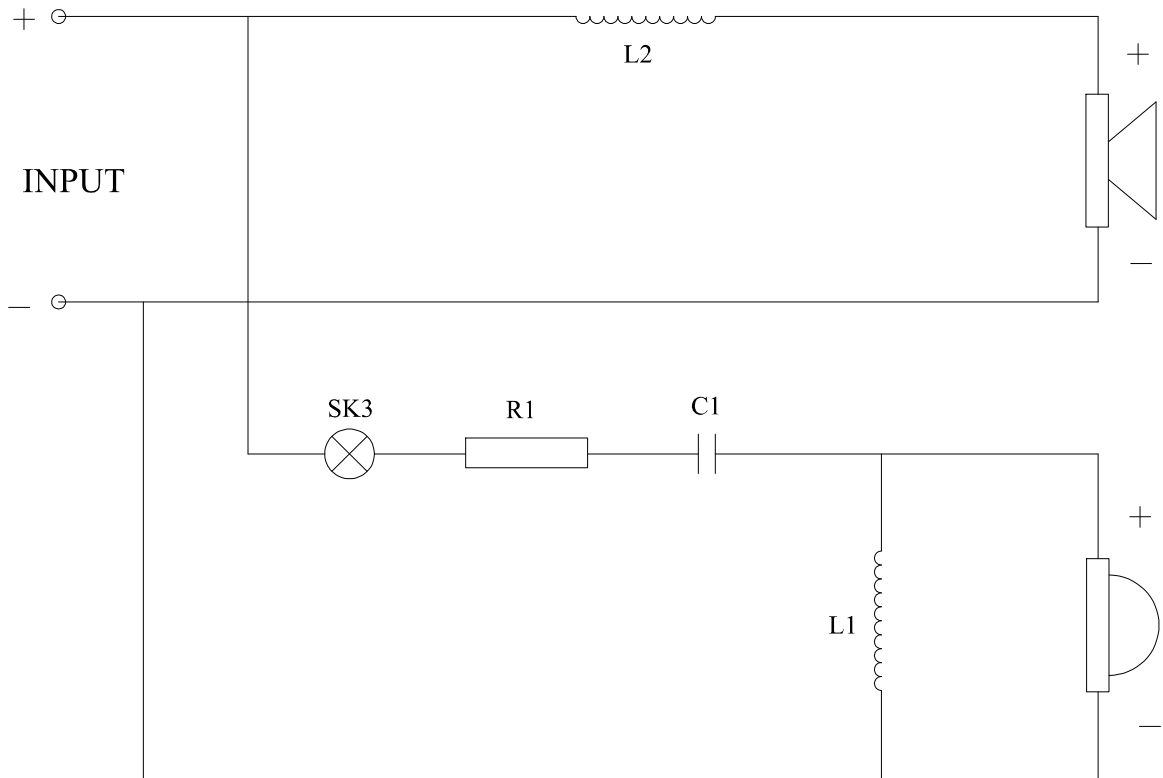
## 1.SPECIFICATIONS

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RATED IMPEDANCE	8 OHM $\pm$ 15%
RESONANT FREQ.(FO)	50Hz $\pm$ 6Hz
OUTPUT S.P.L	96dB $\pm$ 3dB 200,300,400,800Hz
RATED FREQ.FRANGE	Fo-20KHz OUTPUT S.P.L-10dB
POWER INPUT	150W
MAXIMUN S.P.L	124dB
MAX.POWER INPUT	300W
DISTORTION	5% MAX
CROSSOVER FREQUANCY	3.2KHz
WEIGHT	17.5kg
DIMENSIONS	415*428*555(mm)

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## 2.SCHEMATIC DIAGRAM



**SVP-12PM**

R1=2 OHM/25W	L2=0.3mH
L1=0.25mH	C1=1.5uF/250V

### 3.ASSEMBLY PARTS LIST

R/N	P.N	PART NAME	DESCRIPTION	QUA
1	217-2920000001	LOGO BASE		1
2	217-2645000003	LOGO		1
3	344-2923000001	SVP-12PM CABINET		1
4	333-2927000001	FRONT METAL CORNER		4
5	333-2927000002	BACK METAL CORNER		2
6	253-2920000001	HORN		1
7	ZD-53200-01	TWEETER		1
8	ZD-56900-01	WOOFER		1
9	310-2921000001	FRONT METAL GRILLE		1
10	233-0600550501	TUBE		2
11	328-2643000001	PLASTIC HANDLE 1		1
12	328-2921000001	PLASTIC HANDLE 2		1
13	226-0250041311	RUBBER FOOT		4
14	ZC-27400-01	SVP-12PM AMPLIFIER		1
15	600-9230000010	CROSSOVER ASSEMBLED UNIT		1
16	529-4013250813A	SCREWS	SC(*)4*25 DA	4
17	533-5001350801A	SCREWS	MT(+)5*35	3
18	537-4002300801A	SCREWS	MP(+)4*30	4
19	537-5001100801A	SCREWS	MP(+)5*10	4
20	553-4001208061A	SCREWS	4*20 TA H BZn	12
21	553-4001259061A	SCREWS	4*25 TA H BZn	4
22	553-5001259061A	SCREWS	5*25 TA H	8
23	554-4001208061A	SCREWS	4*20 KA h	18
24	554-4002188061A	SCREWS	4.0*18 KA H	16
25	577-3534408062A	SCREWS	3.5* TA H BZN	4

SVP-12PM

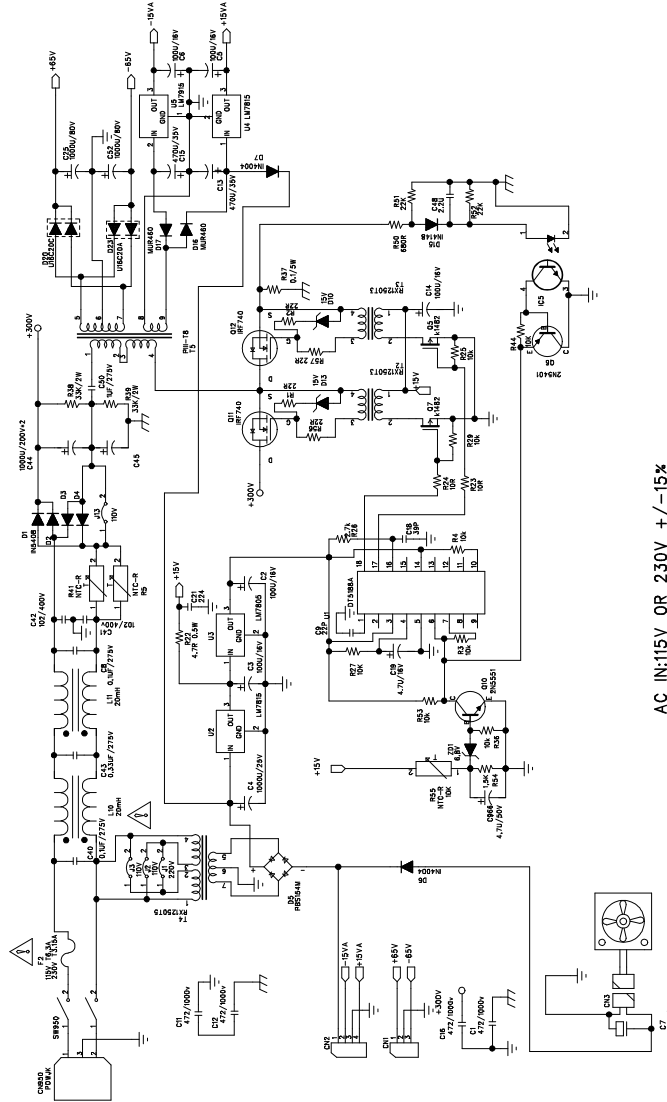
#### 4.ELECTRONIC PARTS LIST

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R/N	P.N	PART NAME	DESCRIPTION	QUA
1	053-2921003109	PCB BOARD		1
2	079-0002000000	LAMP		1
3	014-1550411002	CAPACITOR	1.5uF/250V	1
4	001-2009519100	RESISTOR	2 OHM/25W	1
5	080-0100306000	INDUCTANCE	0.3mHmH	1
6	080-0302510110	INDUCTANCE	0.25mH	1

## 5. SCHEMATIC DIAGRAM (AMP)

### SVP-12PM



AC IN: 115V OR 230V  $\pm 15\%$   
DC OUT:  $\pm 65V$  500W  $\pm 15V$  1.5A

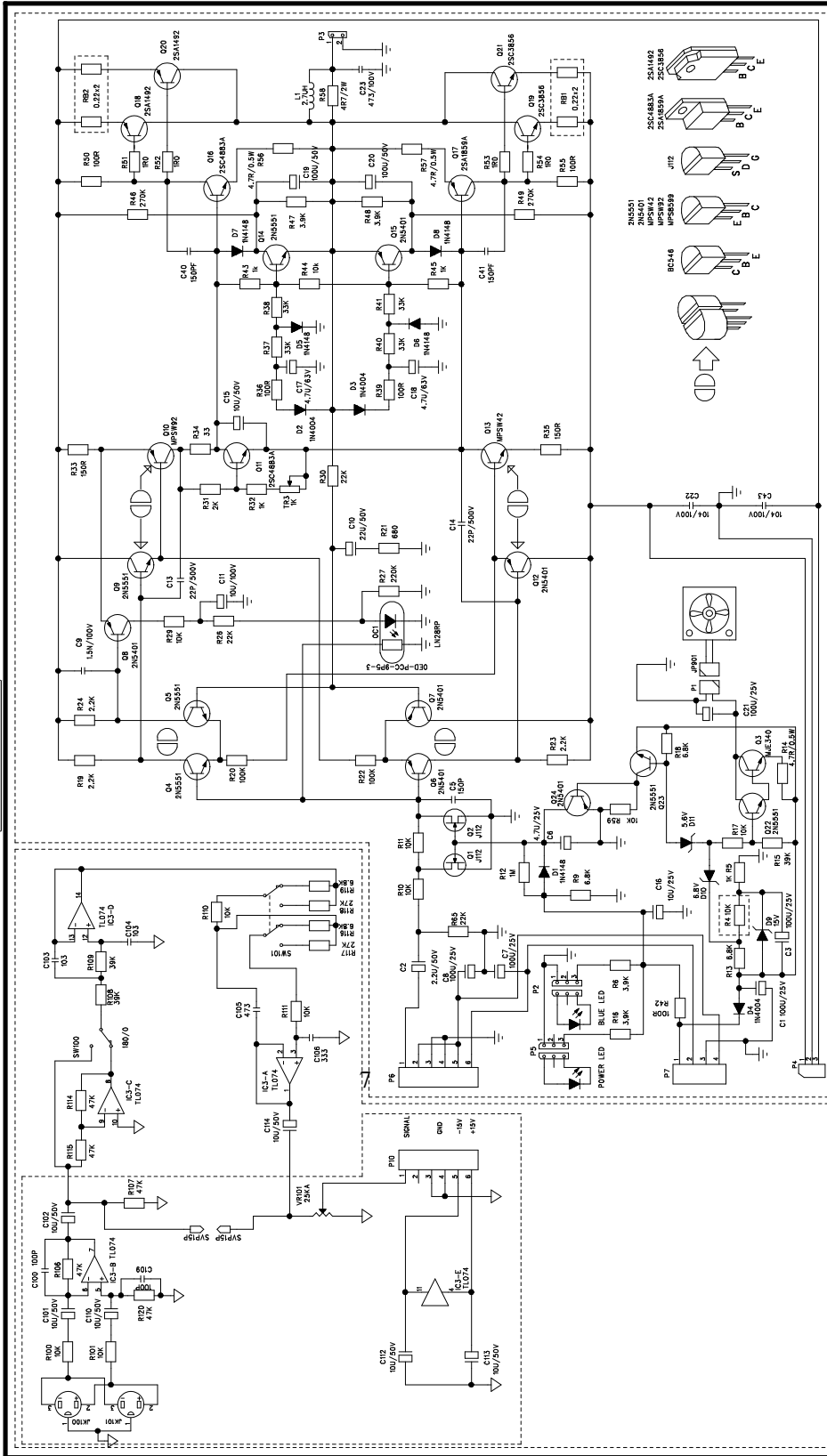
⚠ Adjacent to the relevant component denoting specific component shall be replaced only by the component specified in the circuit for safety reasons.

**Note:** Damage requiring service .unplug this product form the wall outlet and refer servicing to qualified service personnel. When replacement parts are required .be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock ,or other hazards .Upon completion of any service or repairs This product,ask the service technician to perform safety checks to determine that the product is in proper operating condition.

SANECORE MUSIC INSTR CO.:LTD	
TITLE: SVP15P/15PB/18PB	
MODEL: C-334	DWG No: C-334
DWG: DX	DATE: 2004.02.09
CHK:	DATE:
APR:	DATE:

## 5. SCHEMATIC DIAGRAM(AMP)

### SVP-12PM



⚠ Adjacent to the relevant component denoting specific component shall be replaced only by the component specified in the circuit for safety reasons.

**Note:** Damage requiring service ,unplug this product form the wall outlet and refer servicing to qualified service personnel. When replacement parts are required ,be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock ,or other hazards ,Upon completion of any service or repairs This product,ask the service technician to perform safety checks to determine that the product is in proper operating condition.

SANECORE MUSIC INSTR CO.,LTD	
TITLE: SVP15P/15PB/18PB	
MODEL: C-334	DWG No: C-334
CHK: DX	DATE: 2004.02.09
APR:	DATE:

## 6.ASSEMBLY PARTS LIST(AMP)

R/N	P/N	PART NAME	DESCRIPTION	QUA
1	300-1274000021	METAL PANEL		1
2	308-1274000001	ALUMINIUM PAN		1
3	306-1326000001	RADIATOR		1
4	304-1295000001	BRACKET		1
5	213-1026000001	KNOB		1
6	307-2300601501	COPPER POLE	M3*15	4
7	307-2300500191	COPPER POLE	M3*19	1
8	307-1300500111	COPPER POLE	M3*10.8	5
9	535-3031060801A	SCREWS	MPW(+)3*6 BZn	11
10	537-4001100801A	SCREWS	MP(+)4*10 BZn	4
11	537-3001080801A	SCREWS	MP(+)3*14 BZn	1
12	537-3001140801A	SCREWS	MP(+)3*8 BZn	7
13	524-3022080811A	SCREWS	SK(+)3*8MC HBZn	4

SVP-12PM



## 7.ELECTRONIC PARTS LIST(AMP)

R/N	P.N	PART NAME	DESCRIPTION	QUA	PLACE
	088-1274001000	ATTUNEMENT PCB		1	
1	053-1274002000	PCB BOARD		1	
2	014-4740211028	CAPACITOR	MKS2 470nF 63V 10%	1	C4
3	014-1020100001	CAPACITOR	CL11 1NF-50V-J	1	C21
4	014-1030100001	CAPACITOR	10NF 50V J	1	C3
5	014-1040100001	CAPACITOR	CL11 100NF/50V-J	1	C6
6	014-1220200002	CAPACITOR	AMZ 1N2F-63V-5%	1	C7
7	014-1530100001	CAPACITOR	CL11 15NF/50V-J	1	C10
8	009-1050508110	CAPACITOR	1uF 50V 20%	1	C2
9	014-2730300001	CAPACITOR	27N-100V-J	1	C1
10	014-4710100002	CAPACITOR	AMZ 470PF/50V J	1	C9
11	014-4720100001	CAPACITOR	CL11 4.7NF/50V-J	1	C5
12	008-4701010014	CAPACITOR	470P-100V-J	1	C11
13	014-5630100001	CAPACITOR	CL11 56NF/50V-J 5%	1	C8
14	008-1001005015	CAPACITOR	100PF-50V-10%	1	C18
15	006-1014061143	CAPACITOR	SM100uF 25V	2	C14.C15
16	006-1004051143	CAPACITOR	SM10uF 25V	4	C12.C13.C19.C20
17	006-2204061163	CAPACITOR	SM22UF 50V 20%	1	C17
18	001-1502105050	RESISTOR	1.5K 1/4W J	1	R7
19	001-1004105050	RESISTOR	100K 1/4W J	1	R5
20	001-1001105050	RESISTOR	100 OHM 1/4W J	1	R14
21	001-1803105050	RESISTOR	18K 1/4W J	1	R3
22	001-2203105050	RESISTOR	22K 1/4W J	2	R9.R10
23	001-4702105050	RESISTOR	4.7K 1/4W J	1	R1
24	001-2002105050	RESISTOR	2K 1/4W J	1	R15
25	020-5032129112	POTENTIOMETERS	R0911NOX-V1B503YE00-00	1	R2
26	020-1043119012	POTENTIOMETERS	RA4543-20-15EB1-B100K-C	5	POT1.POT2.POT3.POT4.POT5
27	056-4102220000	JACK	JS-1001-02	1	CON2
28	056-4104221100	JACK	DJ2802-4P	1	CON1
29	018-4108599115	AUDION	MSP8599 TO-92	1	Q1
30	019-0311122001	LED	204HD/E-A RED	1	R16
31	017-3290000000	IC	TA7796P	1	U1
32	017-0650000000	IC	TL072(CN)	1	U2
33	222-0130505011	LAMP'S BRACKET	LED-13	1	R16
	088-1274002000	INPUT PCB		1	
1	053-1274003000	PCB BOARD		1	
2	049-2102224111	JACK	PHONE JY6351-02-250	2	
3	049-1304113120	JACK	LS-2031-4	1	
1	055-0304400133	LEAD		1	
2	055-2502300344	LEAD		1	
3	044-2600000000	POWER JACK	RF-2004	1	
4	041-2043000000	POWER SWITCH	R130-22C-11P	1	
5	060-4180120015	LEAD		2	

SVP-12PM

## 7.ELECTRONIC PARTS LIST(AMP)

6	071-1100000000	LEAD		3	
7	060-8180250700	LEAD		2	
8	031-2200515122	FUSE	TSD6.3A 5*20	1	
9	060-8160100508	PLUG WIRE	C-W025-13 L=100 16#	1	
10	055-3004150133	WIRE		1	
11	055-3603150211	WIRE		1	
12	083-0122500000	FAN		1	
13	060-0180151004	LEAD		1	
14	742-0600000000	PLASTIC TUBE		3	
15	742-2500000000	PLASTIC TUBE		1	
	088-1326000000	POWER PCB		1	
1	053-1276001304	PCB BOARD		1	
2	001-0109510050	RESISTOR	0.1 OHM 5W J	1	R37
3	001-1000103050	RESISTOR	10 OHM 1/8W	2	R23,24
4	001-1003103050	RESISTOR	10K 1/8W J	5	R27,R36,R3,R53,R4
5	001-3303209050	RESISTOR	33K 2W	2	R38.39
6	001-2203103050	RESISTOR	22K 1/8W J	1	R52
7	001-1502103050	RESISTOR	1.5K 1/8W J	1	R54
8	001-2200103050	RESISTOR	22 OHM 1/8W J	4	R1.2.56.57
9	001-2202103050	RESISTOR	2.2K 1/8W J	2	R25.29
10	001-2203103050	RESISTOR	22K 1/8W J	1	R51
11	001-2702103050	RESISTOR	2.7K 1/8W J	1	R26
12	001-4709107050	RESISTOR	4.7OHM 1W J	1	R22
13	004-3307000000	RESISTOR	10D-20	1	R41
14	004-3312000000	RESISTOR	NTC 10K	1	R55
15	006-1014061133	CAPACITOR	CD11-100U16V6*11	5	C2.C5.C6.C14.C3
16	006-1024184183	CAPACITOR	1000UF/80V 18*41	2	C25.52
17	006-1024304103	CAPACITOR	LP1000UF/200V 30*41	2	C44.C45
18	006-0224051163	CAPACITOR	2.2uF 50V 20%	1	C48
19	006-4704051143	CAPACITOR	SM47uF 25V	1	C7
20	006-4711102053	CAPACITOR	470uF 35V 10% 10*20mm	3	C4.13.15
21	006-4794051133	CAPACITOR	CD11-4.7U16V	2	C19.C966
22	008-2200005004	CAPACITOR	22P-50V-J	1	C9
23	008-4702040006	CAPACITOR	472-400V-20%	4	C17.C12.C1.C16
24	009-2240507110	CAPACITOR	224 50V 10%	1	C21
25	014-1050411006	CAPACITOR	1UF/250V 10%	1	C50
26	017-0190000000	IC	NJM7815FA	2	U2.U4
27	017-0950000000	IC	LM7805T/CV (1.0A) TO-22	1	U3
28	017-1830000000	IC	KIA7915	1	U5
29	017-3310000000	IC	DT5188A	1	U1
30	018-0501482115	DIODE	K1482 NEC	2	Q5.Q7
31	018-2905401115	AUDION	2N5401 TO-92	1	Q6
32	018-2905551115	AUDION	2N5551 TO-92	1	Q10
33	018-4400740111	AUDION	IRF740	2	Q11.Q12
34	022-3000041188	TRANSFORMER	SVP15/18	1	T5

SVP-12PM

## 7.ELECTRONIC PARTS LIST(AMP)

35	022-3000041189	TRANSFORMER	SVP15/18	2	T2.T3
36	034-3332000205	SILICA GEL	WO2M 200V 1.5A	1	D5
37	324-0280220100	ISINGLASS	18*26	2	
38	312-1040000002	ISINGLASS	TO-220	4	
39	056-0103220000	JACK	JS-4001-03	1	CN1
40	056-4102220000	JACK	JS-1001-02	1	CN3
41	067-1104148000	DIODE	IN4148	3	D10.D13.D15
42	067-2200303000	DIODE	HER303	2	D16.D17
43	067-2201620000	DIODE	H16C20C	1	D23
44	067-2201620001	DIODE	H16C20A	1	D20
45	067-2204004000	DIODE	IN4004	2	D6.D7
46	067-2205408000	DIODE	IN5408	4	D1.2.3.4
47	067-3305235000	DIODE	6.8V 1/2W IN5235	1	ZD1
48	082-0100000000	DIODE	PC-17T1	1	IC5
49	086-0700000000	TERMINAL	PC187	2	P1.P2
50	306-1334000001	LEFT RADIATOR	C-334.04M	1	
51	306-1334000002	RIGHT RADIATOR	C-334.05M	1	
52	513-3005050800A	WASHER		6	
53	517-3000000800A	WASHER	M3 BZn	3	
54	520-3006400000	PLASTIC WASHER	TW-4	6	
55	528-3022080811A	SCREWS	SV(+)*3*8 MC H BZn	6	
56	830-0106170601	ALNICO		2	
57	026-3033004000	INDUCTANCE	SVP15/18 20MH	2	L10.L11
58	022-1041035132	TRANSFORMER	EI35*13	1	T1
59	513-4008050800A	WASHER		1	
60	742-0150000000	PLASTIC TUBE		0.04	
61	056-4104221100	JACK	DJ2802-4P	1	CN2
62	014-1520300002	CAPACITOR	AMZ 152-100V-J	1	C22
63	008-1004027505	CAPACITOR	0.1UF/275V	2	C40,C23
64	008-3304025005	CAPACITOR	MKP334/275VAC 20%	1	C43
65	526-3022160811A	SCREWS	SB(+)*3*16 MC H BZn	4	
66	001-6801103050	RESISTOR	680 OHM1/8W J	1	R50
67	009-3900507000	CAPACITOR	39P 50V 10%	1	C18
	088-1274000300	AMPLIFIER PCB		1	
1	053-1326001110	PCB BOARD		1	
2	001-0470308050	RESISTOR	4.7 OHM 2W J	1	R58
3	001-1001105050	RESISTOR	100 OHM 1/4W J	5	R36.39.50.55.R42
4	001-1002105050	RESISTOR	1K 1/4W J	4	R43.45.32.R5
5	001-1003105050	RESISTOR	10K 1/4W J	5	R29.44.17.59.11
6	001-1009105050	RESISTOR	1 OHM 1/4W J	4	R51.52.53.54
7	001-1501105050	RESISTOR	150 OHM 1/4W J	2	R33.35
8	001-2002105050	RESISTOR	2K 1/4W J	1	R31
9	001-2202105050	RESISTOR	2.2K 1/4W J	4	R19.23.24.R6
10	001-2703105050	RESISTOR	27K 1/4W J	1	R30
11	001-2203105050	RESISTOR	22K 1/4W J	2	R26.55

SVP-12PM

## 7.ELECTRONIC PARTS LIST(AMP)

12	001-2204105050	RESISTOR	220K 1/4W J	1	R27
13	001-1004105050	RESISTOR	100K 1/4W J	2	R20.22
14	001-2205105050	RESISTOR	2M2 1/4W J	1	R12
15	001-2704105050	RESISTOR	270KY4	2	R46.49
16	001-3300105050	RESISTOR	33 OHM 1/4W J	1	R34
17	001-3303105050	RESISTOR	33K 1/4W J	4	R37.38.40.41
18	001-3902105050	RESISTOR	3.9K 1/4W J	3	R47.48.R16
19	001-3903105050	RESISTOR	39K 1/4W J	1	R15
20	001-4709107050	RESISTOR	4.7 OHM 1W J	3	R56.R57.R14
21	001-6801105050	RESISTOR	680 OHM 1/4W J	1	R21
22	001-6802105050	RESISTOR	6.8K 1/4W J	3	R13.R9.R18
23	003-0229910050	RESISTOR	BPR55F R22J	2	R81.82
24	004-3312000000	RESISTOR	NTC 10K	1	R4
25	004-6609000000	RESISTOR	3-11K	1	OC1
26	006-0224051163	CAPACITOR	2.2uF 50V 20%	1	C2
27	006-1001051163	CAPACITOR	SM10uF 50V 10%	2	C15.16
28	006-1004061193	CAPACITOR	10uF 100V UL	1	C11
29	006-1011061143	CAPACITOR	SM 100uF 25V 10%	5	C1.3.21.8.7
30	006-1014081463	CAPACITOR	SM 100uF 50V 20%	2	C19.20
31	006-2201051163	CAPACITOR	SM 22uF 50V 10%	1	C10
32	006-4794051173	CAPACITOR	4.7uF 63V	3	C6.17.18
33	008-1004010017	CAPACITOR	104-100V-Z	2	C43.C22
34	008-1512050004	CAPACITOR	151/500V 10%	3	C5.40.41
35	008-2201050004	CAPACITOR	22P/500V 10%	2	C13.14
36	014-1520300002	CAPACITOR	AMZ 152-100V-J	1	C9
37	014-4730300001	CAPACITOR	47N-100V-J CL11	1	C23
38	018-0101492116	AUDION	2SA1492 TO-3P	2	Q18.20
39	018-0101859113	AUDION	2SA1859A	1	Q17
40	018-0303856116	AUDION	2SC3856 TO-3P	2	Q19.21
41	018-0304883113	AUDION	2SC4883A	2	Q11.16
42	018-1900340113	AUDION	MJE340 TO-126	1	Q3
43	018-2800112115	AUDION	J112 TO-92	1	Q2
44	018-2905401115	AUDION	2N5401 TO-92	6	Q24.6.7.8.12.15
45	018-2905551115	AUDION	2N5551 TO-92	6	Q23.22.4.5.9.14
46	018-4200042115	AUDION	MPSW42	1	Q13
47	018-4200092115	AUDION	MPSW92	1	Q10
48	019-0315132000	LED	RED	1	OC1
49	020-1022210017	POTENTIOMETERS	T805SC-B1K	1	TR3
50	026-2794103170	INDUCTANCE	2.7UH	1	L1
51	056-0102224400	JACK	JS3962-2P-WAFER	1	P3
52	056-0103220000	JACK	JS-4001-03	1	P4
53	056-4106220000	JACK	DJ2810-06	1	P6
54	056-4102220000	JACK	JS-1001-02	1	P1
55	056-4103220000	JACK	JS-1135-03	2	P2.P5
56	056-4104220000	JACK	JS-1135-04	1	P7

SVP-12PM

## 7.ELECTRONIC PARTS LIST(AMP)

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57	067-1104148000	DIODE	IN4148	5	D1.5.6.7.8
58	067-2204004000	DIODE	IN4004	3	D2.3.4
59	067-3305232000	DIODE	5.6V 1/2W IN5232	2	Z1.D11
60	067-3305235000	DIODE	6.8V 1/2W IN5235	1	D10
61	513-3005050800A	WASHER		7	
62	517-3000000800A	WASHER	M3 BZn	7	
63	537-3001160801A	SCREWS	MP(+) <sup>3</sup> *16 BZn D	7	
64	742-0600000000	PLASTIC TUBE	GRAY L=50MM	0.04	
65	742-0150000000	PLASTIC TUBE	GRAY L=50MM	0.04	