

Wharfedale Pro Service Manual: TITAN SUB A15 Professional Speaker

TITAN SUB A15

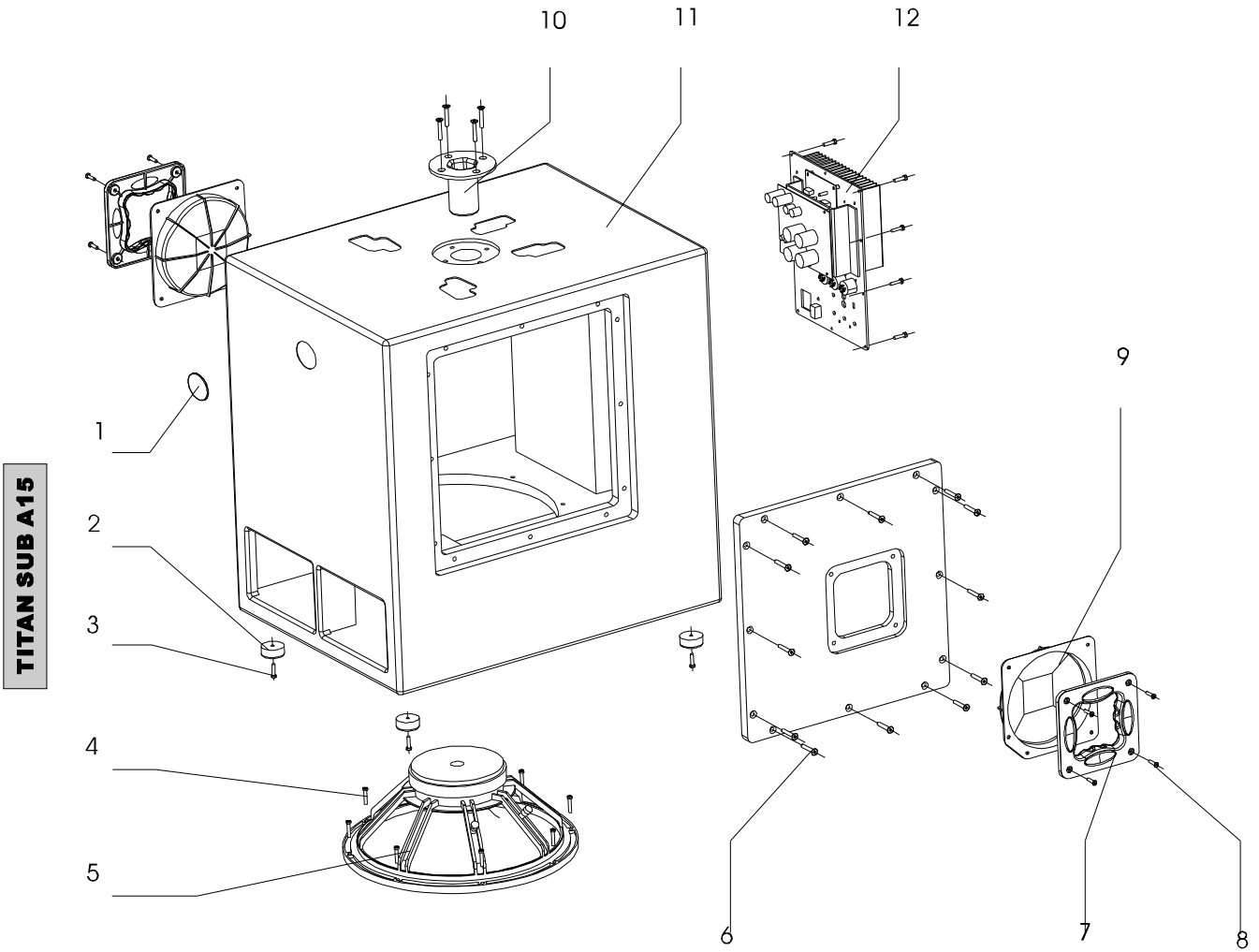
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1.SPECIFICATIONS

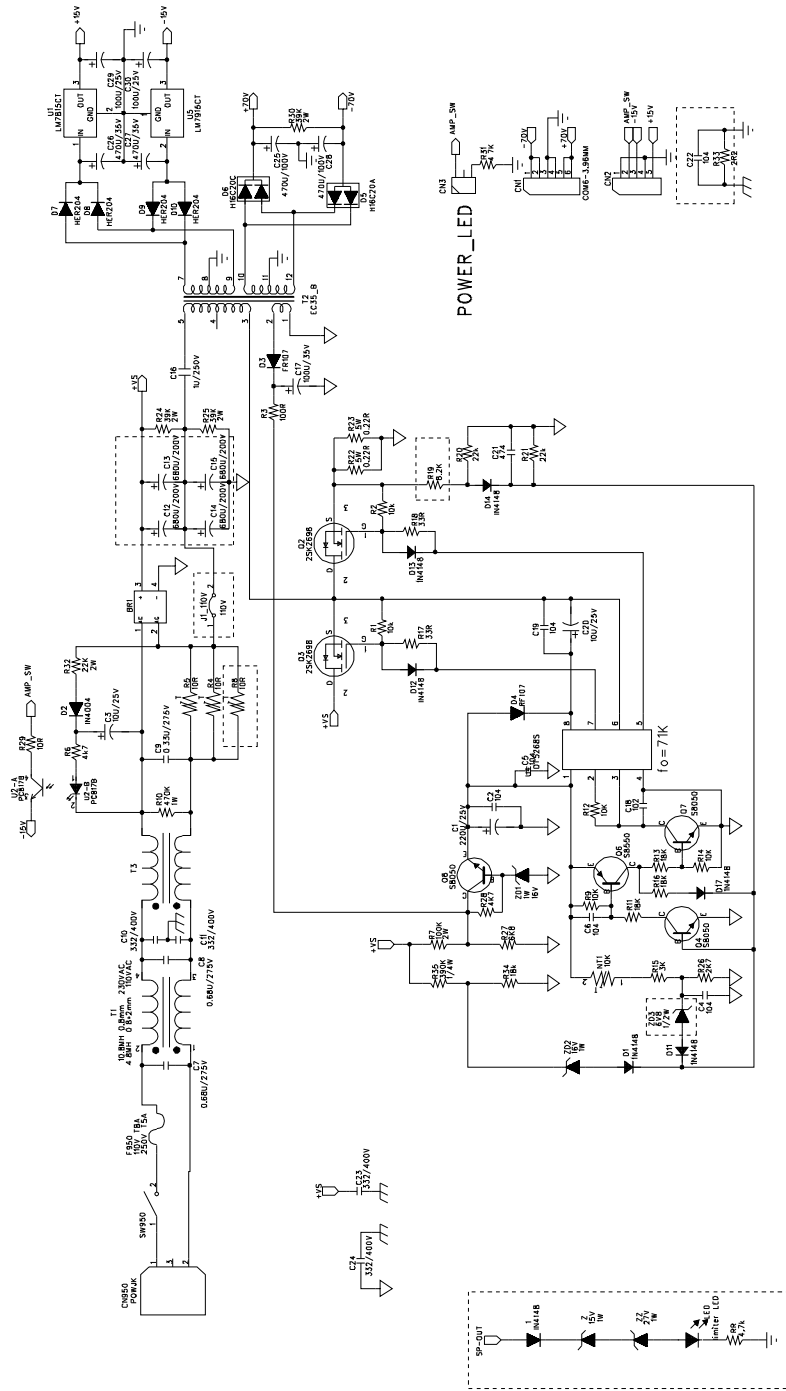
System Type	Band-pass subwoofer
Frequency Response +/-3dB	45-150Hz
Enclosure Material	18mm Plywood
Enclosure Colour	Grey
Frame Material	Die-cast aluminium frame
Size(mm/inches)	404mm/15"
Coil Size(mm/inches)	75/3"
Impedance	4 ohm
Speaker Pole Adapter	Yes
Inputs A & b-Type/Connection	Balanced Line Level inputs via two combo connectors
Output A & b-Type/Connection	Balanced Line Level Outputs via two XLR-M connections
Input Sensitivity	0.775V
High Pass Frequency Selection	100Hz
Phase Switch Selection	0° / 180°
Speaker Level Input Impedance	1/4" TS Phone input
Speaker Level Input Connection	4 ohm
Amplifier Power:	
Continuous	400W
Peak	600W
Protection Type	Dynamic AGC
Power On Indicator	LED
Dimensions(mm/inches):	
Height	630.0mm/24.8"
Width	478.0mm/18.8"
Depth	640.0mm/25.2"
Weight (Net)kg/ibs	45.48kg/100.01bs
Weight (gross)kg/ibs	50.26kg/110.51bs

2.ASSEMBLY SKETCH



3. SCHEMATIC DIAGRAM

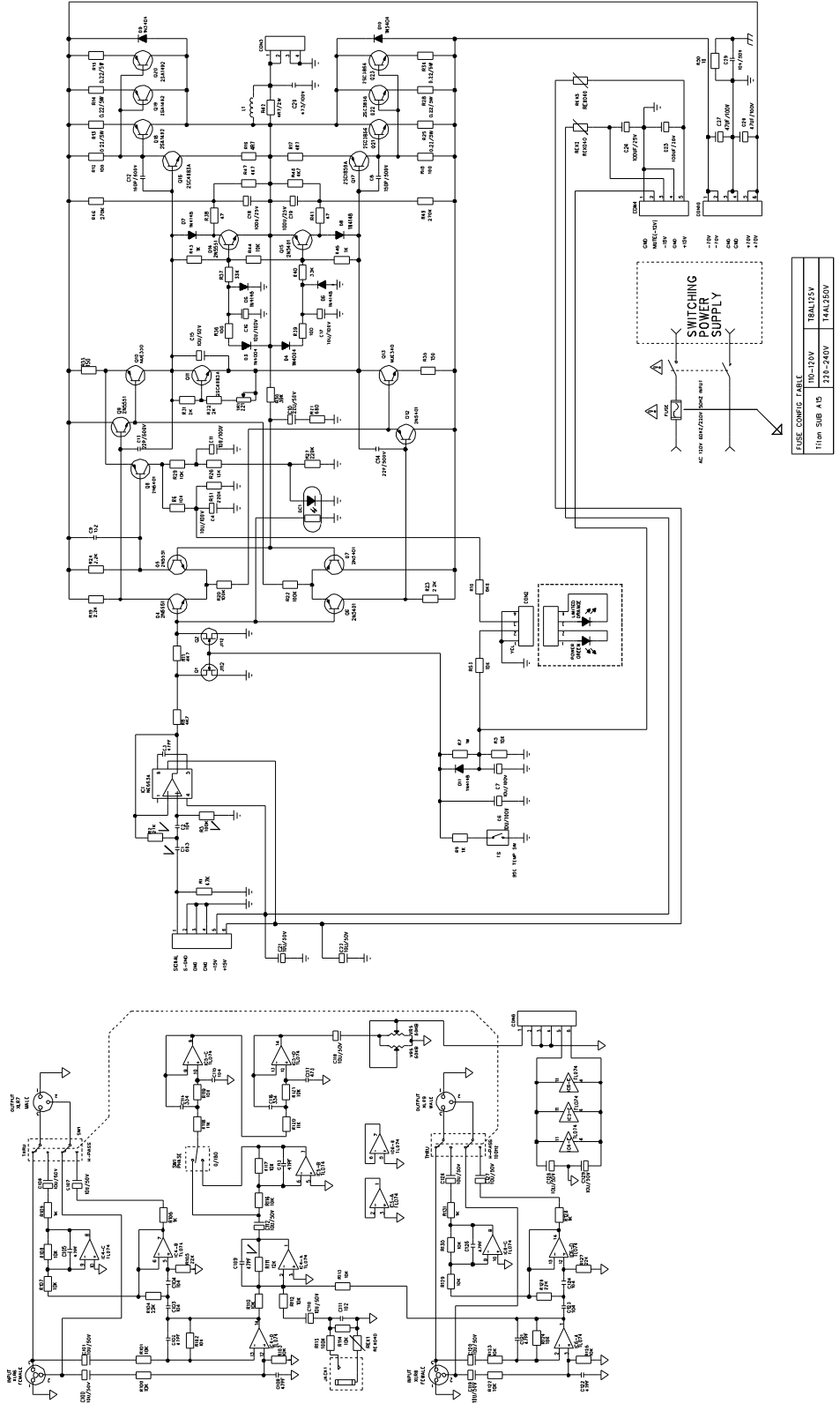
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SANECORE MUSIC INSTR CO.,LTD	
TITLE: EYP-X15P/15PB/18PB/15PB/15PB/215P	DWG No:
MODEL:	DATE: 2005-3-4
DWG: W. Y. X.	CHK:
APR:	DATE:

3. SCHEMATIC DIAGRAM

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4.ASSEMBLY PARTS LIST

R/N	P/N	PART NAME	DESCRIPTION	QUA
1	313-2104900001R	LOGO		1
2	226-0380001515R	RUBBER FOOT		4
3	558-4001258061AR	SCREW	M4 × 25	4
4	539-5001350802AR	SCREW	M5 × 35	8
5	ZD-75700-01R	WOOFER		1
6	534-6001400801AR	SCREW	M6 × 40	16
7	243-2128100000R	HANDLE		2
8	536-5001120703R	SCREW	M5 × 12	8
9	201-3113900000R	POCKET HANDLE		2
10	259-2080000001R	SPEAKER STAND ADAPTER		1
11	344-2128100001R	CABINET		1
12	ZC-47210-07R	AMPLIFIER		1

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5.ELECTRONIC PARTS LIST

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R/N	P/N	PART NAME	DESCRIPTION	QUA	LOCATION
1	019-0311022001R	LED	234HD RED	1	
2	019-0322022001R	LED	234GD/E-A GREEN	1	
3	031-2200512121R	FUSE	50T040H	1	
4	042-1003005000R	POWER SWITCH	RL3-421-G-2 BK/BK-P8	1	
5	044-1000000000R	POWER SOCKET	220V R-3013	1	
6	055-3706120011R	FLAT LINE	6PIN 1007#18 L=120MM	1	
7	055-3904180333R	FLAT LINE	L=180MM 4P 1007 24#	1	
8	060-0180151004R	FLAT LINE	C-022-6 L=150 18#	1	
9	060-4180120015R	WIRE	150MM RED	1	
10	060-4180120315R	WIRE	150MM BLUE	1	
11	060-4180260012R	WIRE	RED 1617 18# L=260mm	1	
12	060-4180260712R	WIRE	YELLOW 1617 18# L=260mm	1	
13	071-1100000000R	CABLE TIES	100MM YJ-100	12	
	088-1384005000R	POWER BOARD		1	
1	001-0220106050R	RESISTOR	2.2 OHM 1/2W J	1	R33
2	001-0393108050R	RESISTOR	39K 2W 5%	3	R24, 25, 30
3	001-0398810050R	RESISTOR	0.39R 5W 5%	2	R22, 23
4	001-1000203010R	RESISTOR	10 OHM 1/8W F	1	R29
5	001-1001203010R	RESISTOR	100 OHM 1/8W F	1	R3
6	001-1002203010R	RESISTOR	1K 1/8W F	1	R28
7	001-1003203010R	RESISTOR	10K 1/8W F	5	R14, 12, 1, 2, 9
8	001-1004208050R	RESISTOR	100K2W 5%	1	R7
9	001-1732203010R	RESISTOR	13.7K 1/8W 1%	1	R15
10	001-1803203010R	RESISTOR	18K 1/8W F	4	R11, 13, 16, 34
11	001-2203203010R	RESISTOR	22K 1/8W F	1	R21
12	001-2203208010R	RESISTOR	22K 2W 1%	1	R32
13	001-2702203010R	RESISTOR	2.7K 1/8W F	1	R20
14	001-3300103050R	RESISTOR	33 OHM 1/8W J	2	R17, 18
15	001-3904203010R	RESISTOR	390KOHM 1/8W F	1	R35
16	001-4702203010R	RESISTOR	4.7K 1/8W F	2	R6, 31
17	001-4703107050R	RESISTOR	470K 1W 5%	1	R10
18	001-6801203010R	RESISTOR	680 OHM 1/8W F	1	R26
19	001-6802203010R	RESISTOR	6.8K 1/8W F	1	R27
20	001-9102203010R	RESISTOR	9.1K 1/8W F	1	R19
21	004-3307000000R	RESISTOR	10D-20	3	R4, 5, 8
22	004-3312000000R	RESISTOR	NTC 10K	1	NT1
23	006-1001051163R	CAPACITOR	SM10uF 50V 10%	2	C3, 20
24	006-1011061143R	CAPACITOR	SM 100uF 25V 10%	2	C29, 30
25	006-1014081463R	CAPACITOR	GS101M050F115Z	1	C17
26	006-2214081443R	CAPACITOR	220uF 25V	1	C1
27	006-4711102053R	CAPACITOR	470uF 35V 10%	2	C26, 27
28	006-4714162593R	CAPACITOR	470UF/100V	2	C25, 28
29	006-6814253603R	CAPACITOR	680UF 200V	4	C12, 13, 14, 15
30	008-1004005017R	CAPACITOR	104-Y5P-50V-Z	4	C2, 4, 5, 6

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31	008-1005027505R	CAPACITOR	1UF/275VAC	1	C8
32	008-1021040005R	CAPACITOR	102PF 400V M	4	C10, 11, 23, 24
33	013-3340722502R	CAPACITOR	0.33uF 275V 10%	1	C7
34	014-1020100002R	CAPACITOR	AMZ 0.001UF 50V 5%	2	C18, 19
35	014-1050411006R	CAPACITOR	1UF/250V 10%	1	C16
36	014-4740211028R	CAPACITOR	MKS2 470nF 63V 10%	1	C21
37	017-0190000000R	IC	NJM7815FA T0-220F(JRC)	1	U1
38	017-0200000000R	IC	NJM7915FA T0-220F(JRC)	1	U5
39	017-4660000000R	IC	DT5268S Dip 8P	1	U4
40	018-3408050115R	TRANSISTOR	SS8050	3	Q4, 7, 8
41	018-3408550115R	TRANSISTOR	SS8550C T0-92	1	Q6
42	018-7000460125R	FIELD EFFECT TRANSISTOR	IRFP460A	2	Q2, 3
43	022-1014101245R	TRANSFORMER	EC40	1	T2
44	034-1119992508R	BRIDGE RECTIFIERS	RBV2510	1	BR1
45	053-9384001604R	PCB	152*120*1.6MM	1	
46	056-0106003300R	JACK	6PIN 3.96PH	1	CN1
47	056-4103221100R	JACK	DJ2802-3P	1	CN3
48	056-4105221100R	JACK	DJ2802-05	1	CN2
49	067-1104148000R	DIODE	1N4148	7	D1, 11, 12, 13, 14, 15
50	067-2200107000R	DIODE	HER107 JAL	3	D2, 3, 4
51	067-2200207000R	DIODE	HER204	4	D7, 8, 9, 10
52	067-2201620000R	DIODE	F16C20C	1	D6
53	067-2201620001R	DIODE	F16C20A	1	D5
54	067-3305246000R	ZENER	16V 1/2W 1N5246	2	ZD1, 2
55	080-0210012016R	INDUCTOR	13.6MH 0.8MM 230V AC	2	T1, 3
56	085-0070290200R	PLASTIC MAP		2	
57	306-1385080000R	HEAT SINK	36*45.5*65.5mm	1	
58	306-1386200000R	HEAT SINK	182*120*33mm	1	
	088-1386000700R	SWITCH BOARD	33*18MM	1	
1	043-2210120112R	TOGGLE SLIDE SEITCH	SS-42H03-G12	1	
2	053-1356001152R	PCB	33*18MM	1	
3	057-2541112061R	JACK	6PIN	1	
4	057-2541112081R	JACK	8PIN	1	
	088-1472101000R	SIGNAL BOARD		1	
1	001-1002203010R	RESISTOR	1K 1/8W F	4	R109, 106, 131, 128
2	001-1003203010R	RESISTOR	10K 1/8W F	20	R100-103, 107, 108, 110, 115, 117, 122-125, 129, 130, 112, 114, 116, 119, 121
3	001-1004203010R	RESISTOR	100K 1/8W F	1	R113
4	001-1103203010R	RESISTOR	11K 1/8W F	2	R118, 120
5	001-1203203010R	RESISTOR	12K 1/8W F	1	R111
6	001-2203203010R	RESISTOR	22K 1/8W F	4	R104, 105, 126, 127
7	006-1001051163R	CAPACITOR	SM10uF 50V 10%	13	C100, 101, 106, 107, 112, 108, 110, 126, 127, 119, 120, 128, 129
8	008-1003005015R	CAPACITOR	103/50V 20%	1	C111

5.ELECTRONIC PARTS LIST

9	008-4700005004R	CAPACITOR	47P-50V-J	8	C105, 102, 108, 109, 113, 125, 121, 122
10	013-1040210801R	CAPACITOR	104/63V	1	C115
11	013-3340220504QR	CAPACITOR	0U33 10% 63V MMK05	2	C114, 116
12	013-4730210801R	CAPACITOR	47NF/63V	1	C117
13	014-1040211028R	CAPACITOR	MKS2 100nF 63V 10%	4	C103, 104, 123, 124
14	017-1530000000R	IC	TL074CN	3	IC4, 5, 6
15	020-5052119425R	POTENTIOMETER	16K124A068-50KCBX2STI	1	VR5
16	048-3000000000R	JACK	NYS143 J3Y1 3pin	2	XLR7, 9
17	049-1304113120R	JACK	LS-2031-4	1	JACK1
18	049-2510222016R	JACK	CXLF-07	2	XLR6, 8
19	053-1385003156R	PCB	25*22*1.6MM	1	
20	053-1386001113R	PCB	96*95MM	1	
21	056-4106221100R	JACK	JS-1001-6(2802-06GS)	1	CON6
22	079-0401000000R	PROTECTOR	PTC RXE040	1	REX1
23	089-0500000012R	PROTECTOR	SS-22F20-G12	1	SW1
	088-1472102000R	AMP BOARD		1	
1	001-0229510050R	RESISTOR	0.22 OHM 5W J	6	R13, 14, 15, 25, 28, 34
2	001-0470308050R	RESISTOR	4.7 OHM 2W J	1	R42
3	001-1000205100R	RESISTOR	10 OHM/1/4W	1	R50
4	001-1001205010R	RESISTOR	100 OHM 1/4W F	4	R12, 18, 36, 39
5	001-1002205010R	RESISTOR	1K 1/4W F	3	R9, 43, 45
6	001-1003205010R	RESISTOR	10K 1/4W F	5	R5, 6, 29, 44, 53
7	001-1004105050R	RESISTOR	100K 1/4W J	1	R3
8	001-1004205010R	RESISTOR	100K 1/4W F	2	R20, 22
9	001-1005205010R	RESISTOR	1M 1/4W F	1	R7
10	001-1501205010R	RESISTOR	150 OHM 1/4W F	2	R33, 35
11	001-1503205010R	RESISTOR	15K 1/4W F	1	R26
12	001-2002205010R	RESISTOR	2K 1/4W F	2	R31, 32
13	001-2202205010R	RESISTOR	2.2K 1/4W F	3	R19, 23, 24
14	001-2204205010R	RESISTOR	220K 1/4W F	2	R27, 51
15	001-2703105050R	RESISTOR	27K 1/4W J	1	R2
16	001-2704205010R	RESISTOR	270K 1/4WF	2	R46, 49
17	001-3303205010R	RESISTOR	33K 1/4W F	2	R37, 40
18	001-3903205010R	RESISTOR	39K 1/4W F	1	R30
19	001-4700205010R	RESISTOR	47 OHM 1/4W F	2	R38, 41
20	001-4702205010R	RESISTOR	4.7K 1/4W F	4	R8, 11, 47, 48
21	001-4703205010R	RESISTOR	47K 1/4W F	1	R1
22	001-4709205010R	RESISTOR	4.7 OHM 1/4W F	2	R16, 17
23	001-6801205010R	RESISTOR	680 OHM 1/4W F	1	R21
24	001-6802205010R	RESISTOR	6.8K 1/4W F	1	R10
25	004-6609000000R	RESISTOR	3-11K	1	OC1
26	005-2001306101R	RESISTOR	PA0631-HA1-B201	1	TR1
27	006-1001051163R	CAPACITOR	SM10uF 50V 10%	3	C15, 21, 22
28	006-1004061194R	CAPACITOR	10uF 100V	6	C4, 6, 7, 16, 17, 11

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29	006-1011061143R	CAPACITOR	SM 100uF 25V 10%	4	C18, 19, 23, 24
30	006-2201051163R	CAPACITOR	SM 22uF 50V 10%	1	VC10
31	006-4704101392R	CAPACITOR	47 UF/100V 10*12.5	2	C27, 28
32	008-1512050004R	CAPACITOR	151/500V 10%	2	C12, 8
33	008-2201050004R	CAPACITOR	22P/500V 10%	2	C13, 14
34	008-4700005004R	CAPACITOR	47P-50V-J	1	C3
35	013-1040210801R	CAPACITOR	104/63V	2	C2, 29
36	013-1520210501R	CAPACITOR	152 63V 5%	1	C9
37	014-4730300001R	CAPACITOR	47N-100V-J CL11	1	C20
38	014-6830300001R	CAPACITOR	68N-100V-J	1	C1
39	017-3060000000AR	IC	NJM5534D DIP8 JRC	1	IC1
40	018-0101492116R	POWER TUBE	2SA1492	3	Q18-20
41	018-0101859113R	TRANSISTOR	2SA1859A SANKEN	1	Q17
42	018-0303856116R	POWER TUBE	2SC3856	3	Q21, 22, 23
43	018-0304883113R	TRANSISTOR	2SC4883A (SANKEN)	2	Q11, 16
44	018-1900340113R	TRANSISTOR	MJE340	1	Q13
45	018-1900350113R	TRANSISTOR	MJE350	1	Q10
46	018-2800112115R	FIELD EFFECT TRANSISTOR	J112G	2	Q1, 2
47	018-2905401115R	TRANSISTOR	2N5401	5	Q6-8, 12, 15
48	018-2905551115R	TRANSISTOR	2N5551	4	Q4, 5, 9, 14
49	019-0315132000R	LED		1	
50	026-2794103170R	INDUCTOR	2.7UH	1	L1
51	053-1384001110R	PCB	142*90MM	1	
52	055-0306270233R	FLAT LINE	6PIN L=175MM	1	
53	055-3705125033R	FLAT LINE	5PIN 1007#24	1	
54	055-3706120011R	FLAT LINE	6PIN 1007#18	1	
55	056-4104221100R	FLAT LINE	DJ2802-4P	1	
56	056-6104224400R	JACK	VH3.96 4PIN	1	CON3
57	066-0095010000R	SWITCH		1	
58	067-1104148000R	DIODE	1N4148	5	D5-8, 11
59	067-2204004000R	DIODE	1N4004	2	SD3, 4
60	067-2205404000R	DIODE	1N5404	2	D9, 10
61	079-0401000000R	PROTECTOR	PTC RXE040	2	REX2, 3