

Service manual

B1.36

Powered Subwoofer
featuring



 **audio pro**

Headquarters:
Audio Pro AB. Box 1015. S-251 10 HELSINGBORG
SWEDEN

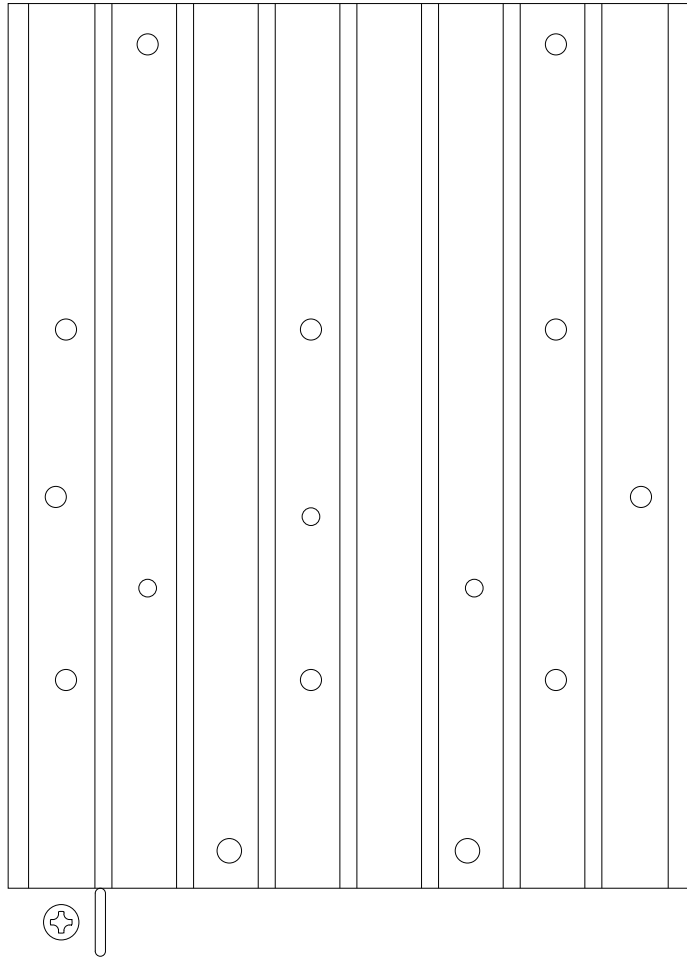
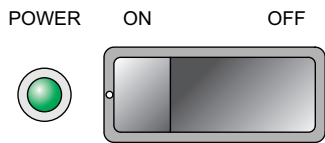
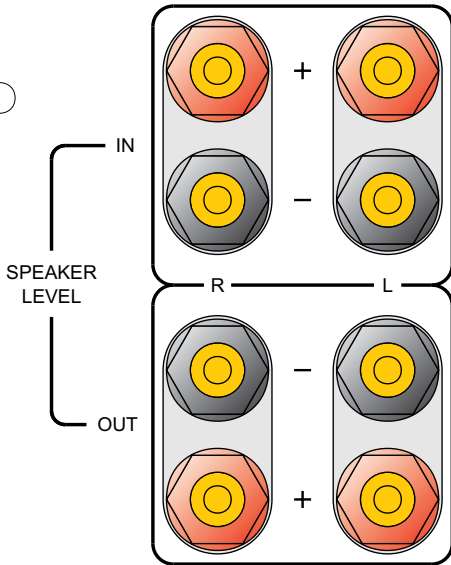
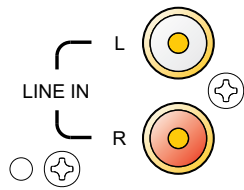
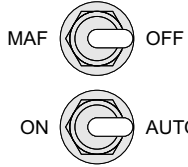
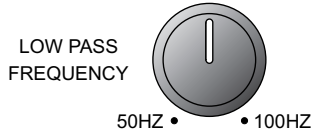
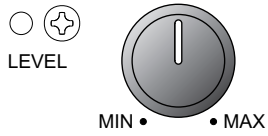
R&D, Service and spareparts:
Audio Pro AB. Box 1308. S-581 13 LINKÖPING
SWEDEN

Technical data B1.36

Enclosure:	200W powered, bass reflex.
Drive units, Woofer:	10" heavy duty woofer
Crossover -Hi Pass:	100Hz 6dB / octave
-Lo Pass:	50 - 100Hz / 24dB / octave
Freq.range:	25-100Hz
Power requirements:	AC 230V 50HZ
Power consumption (max):	200W
Dimensions(WxHxD mm):	350 x 380 + 70 x 350 + 35
Weight net:	20,0 kg

Important note when repairing power amp pcb on B.5 or B.5 amp's.

Before you perform soldering / unsoldering or DC resistance measuring on power amp pcb, connector CN03B must be disconnected. Otherwise unwanted discharge might cause damage on semiconductors.



Serial no:

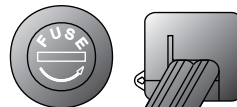
DOUBLE INSULATION - when servicing use only identical replacement parts.

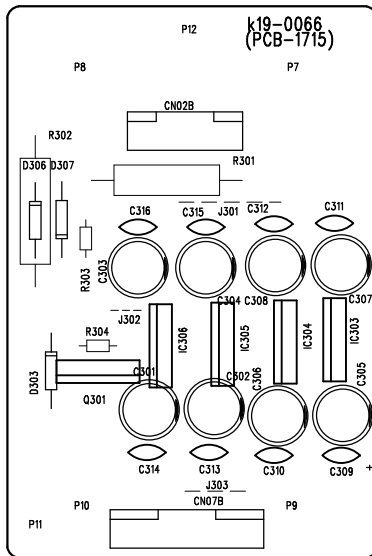
CAUTION:
TO REDUCE THE RISK OF FIRE,
REPLACE WITH ONLY THE SAME
TYPE AND RATING OF FUSE.

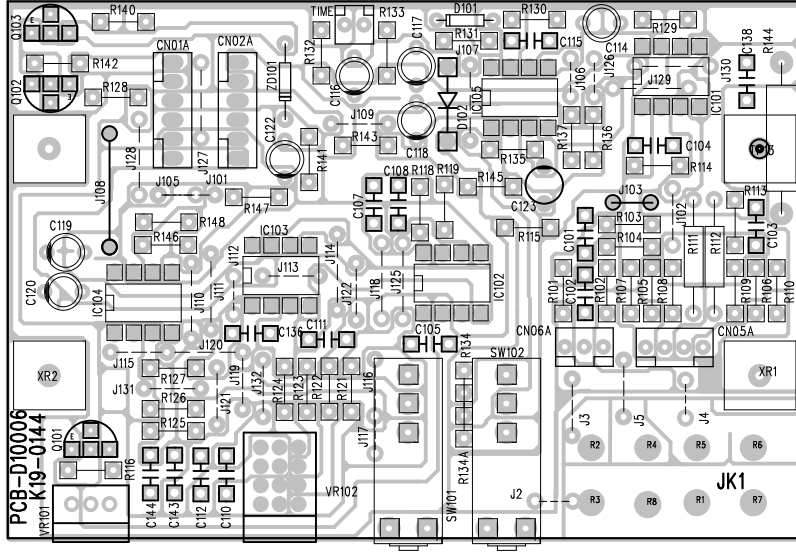


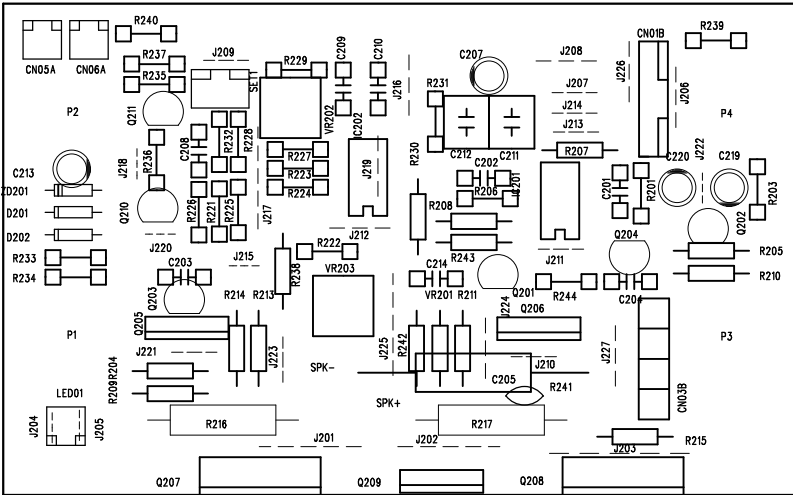
FUSE TYPE:
T1AL 250V FOR 230V

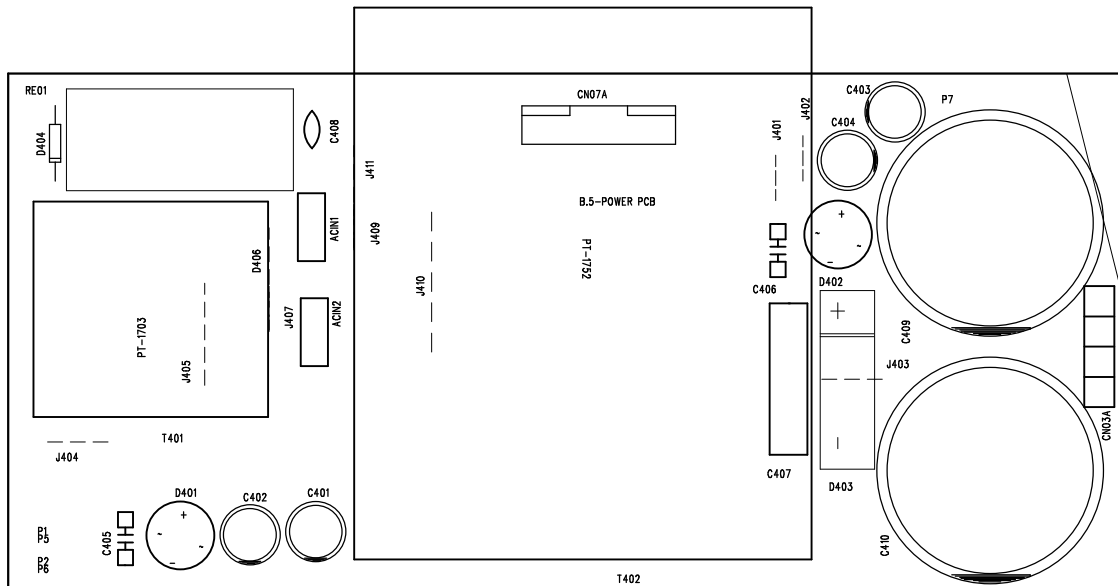
ATTENTION:
UTILISER UN FUSIBLE DE
RECHANGE DE MEME TYPE.

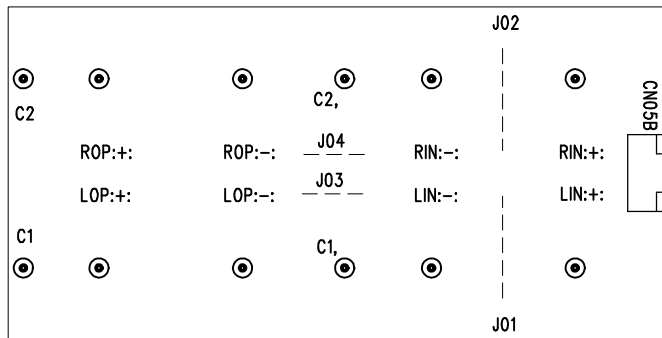


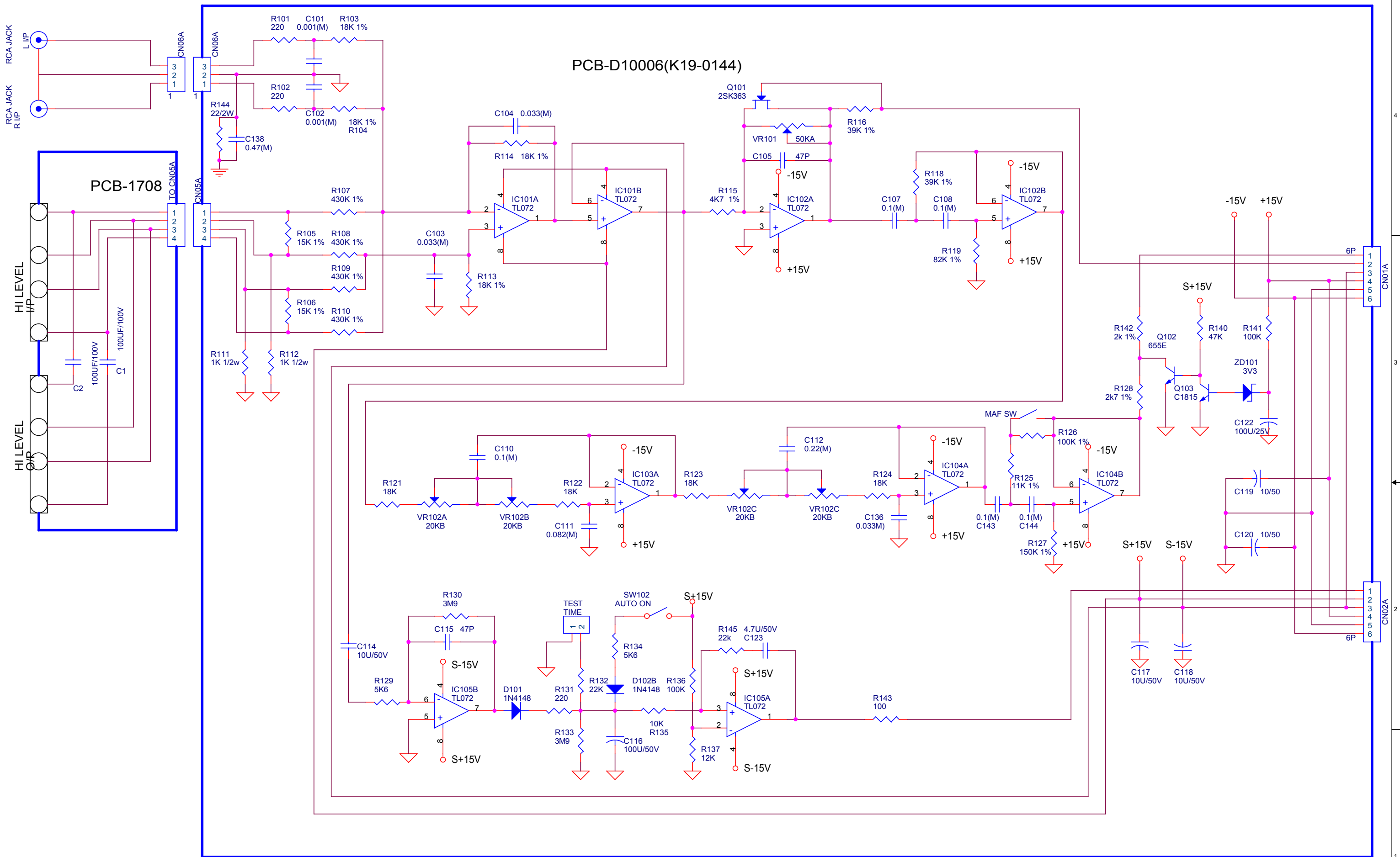




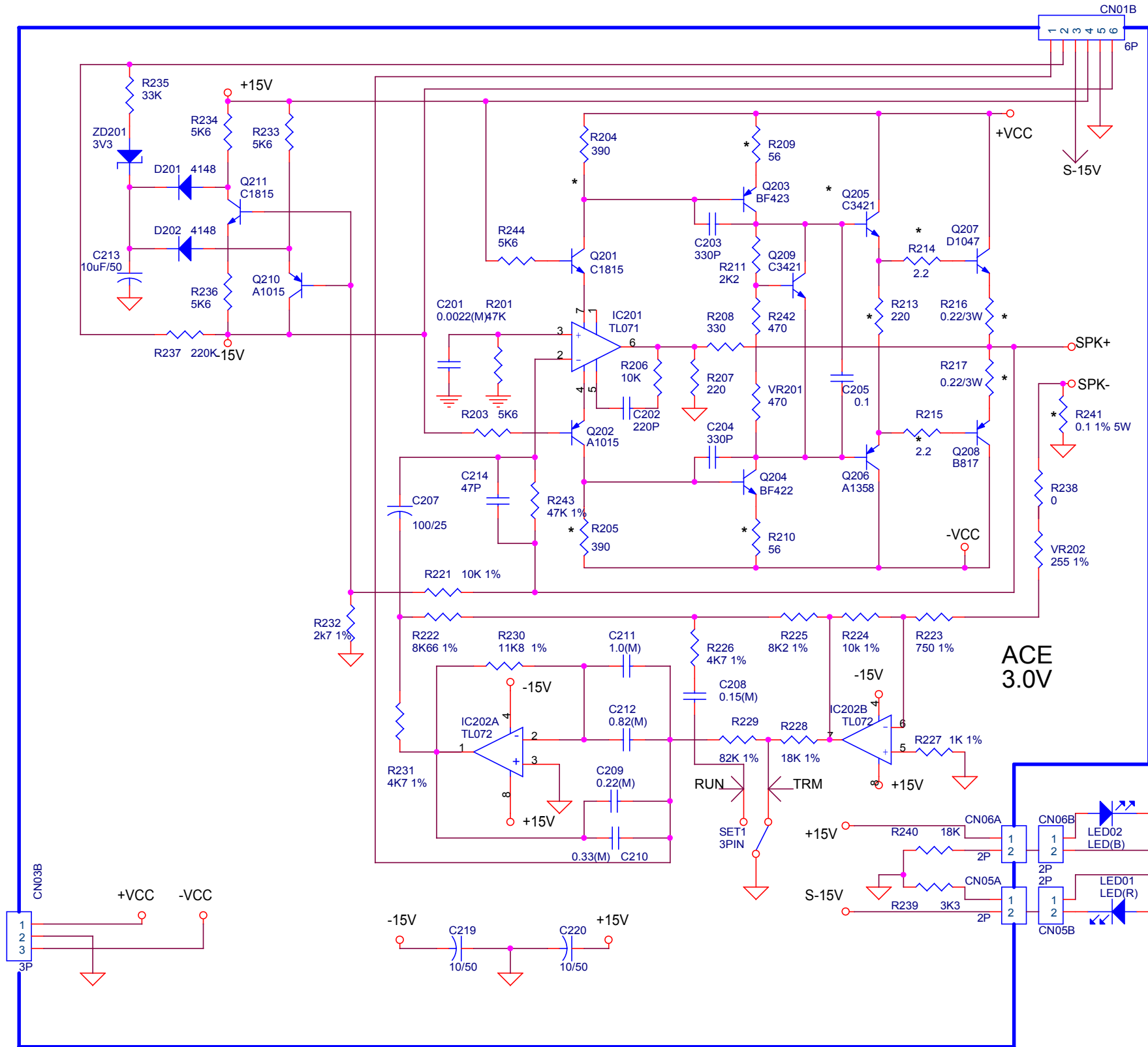
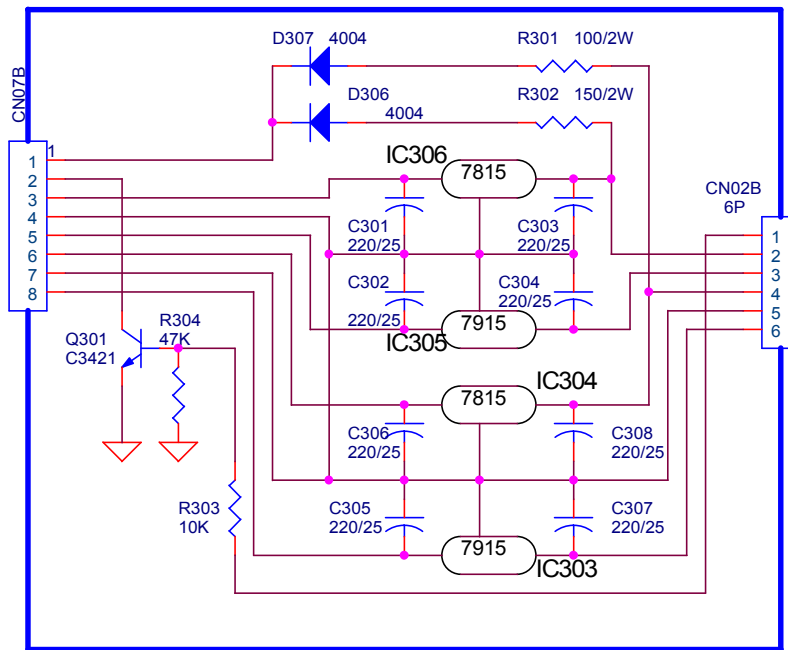




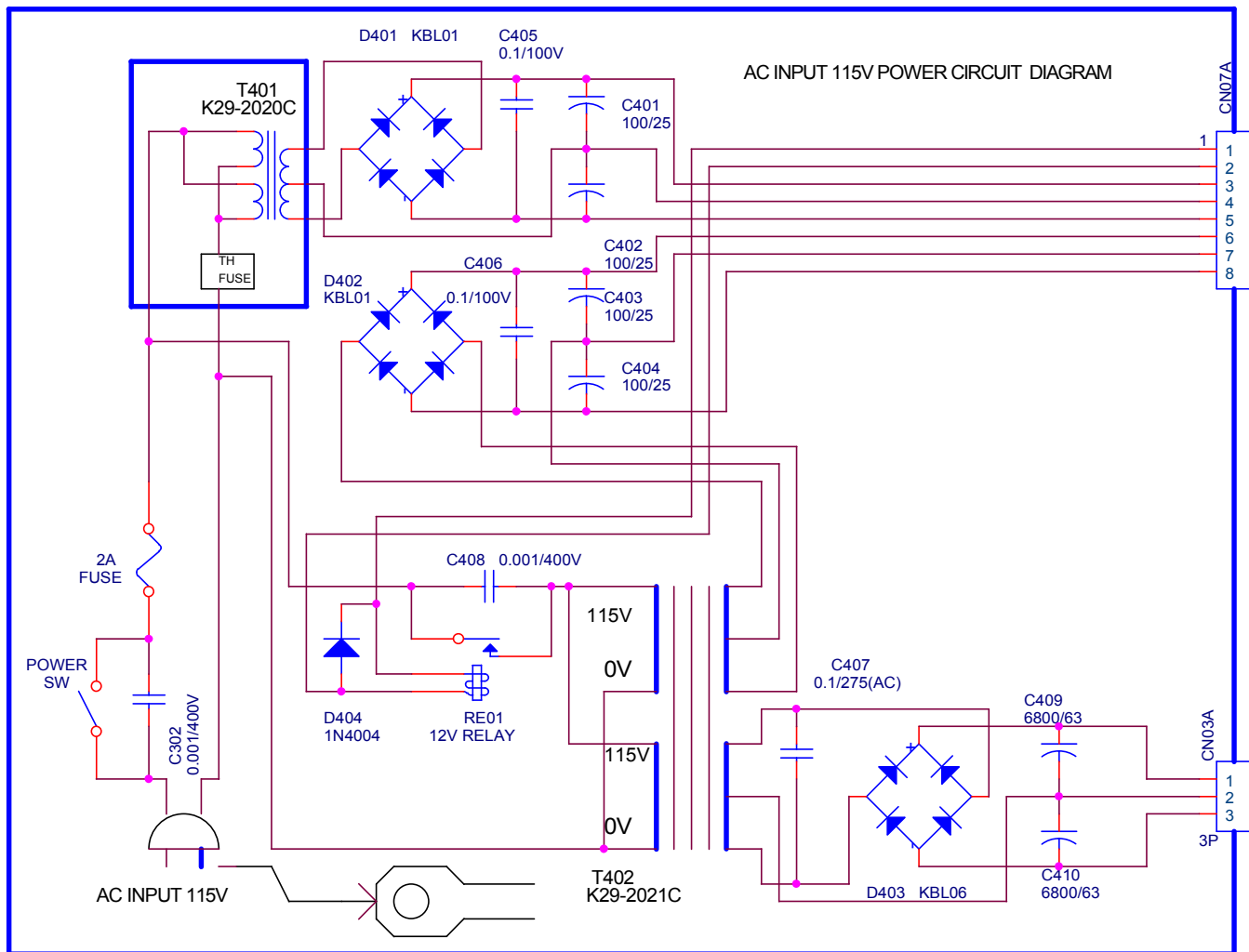
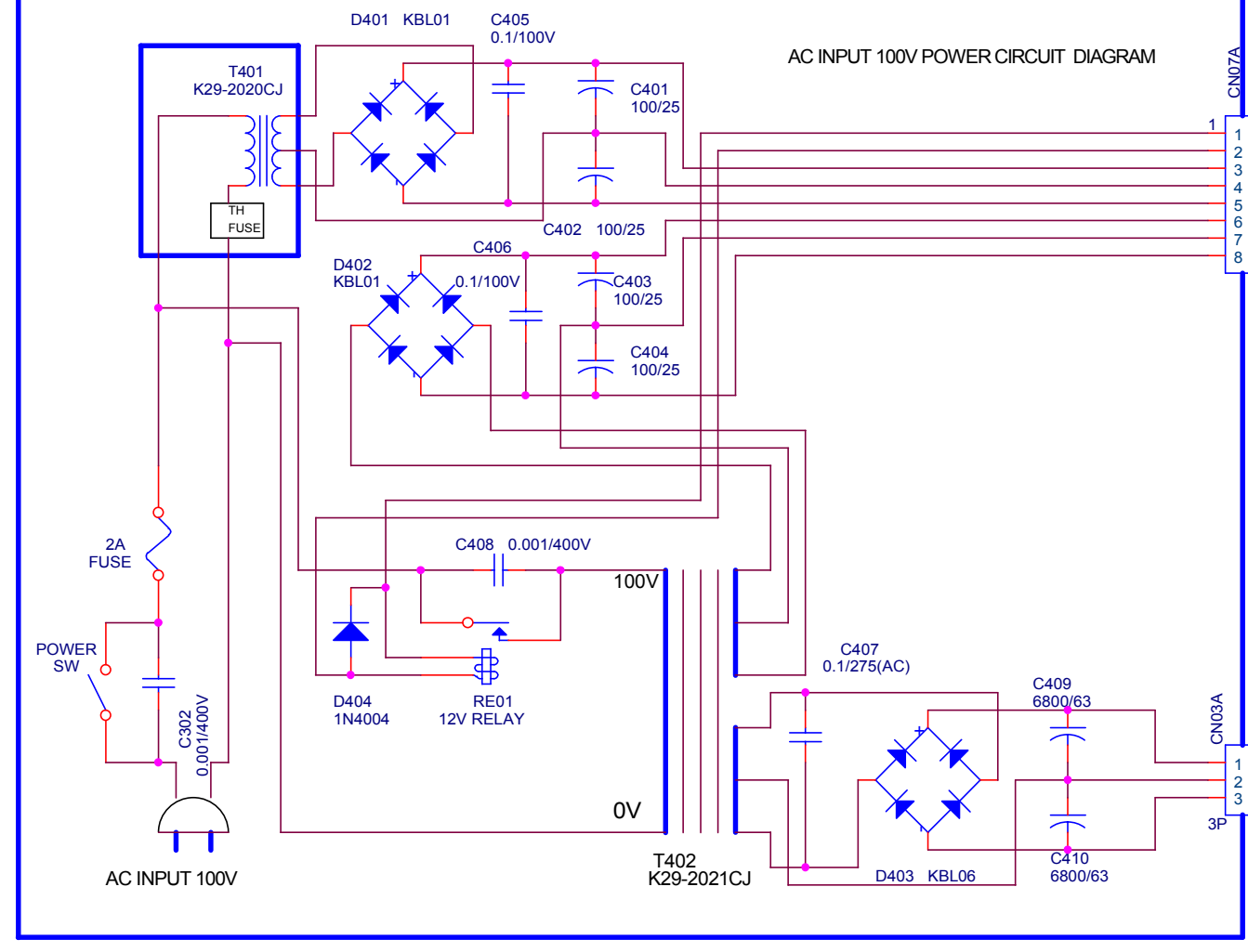
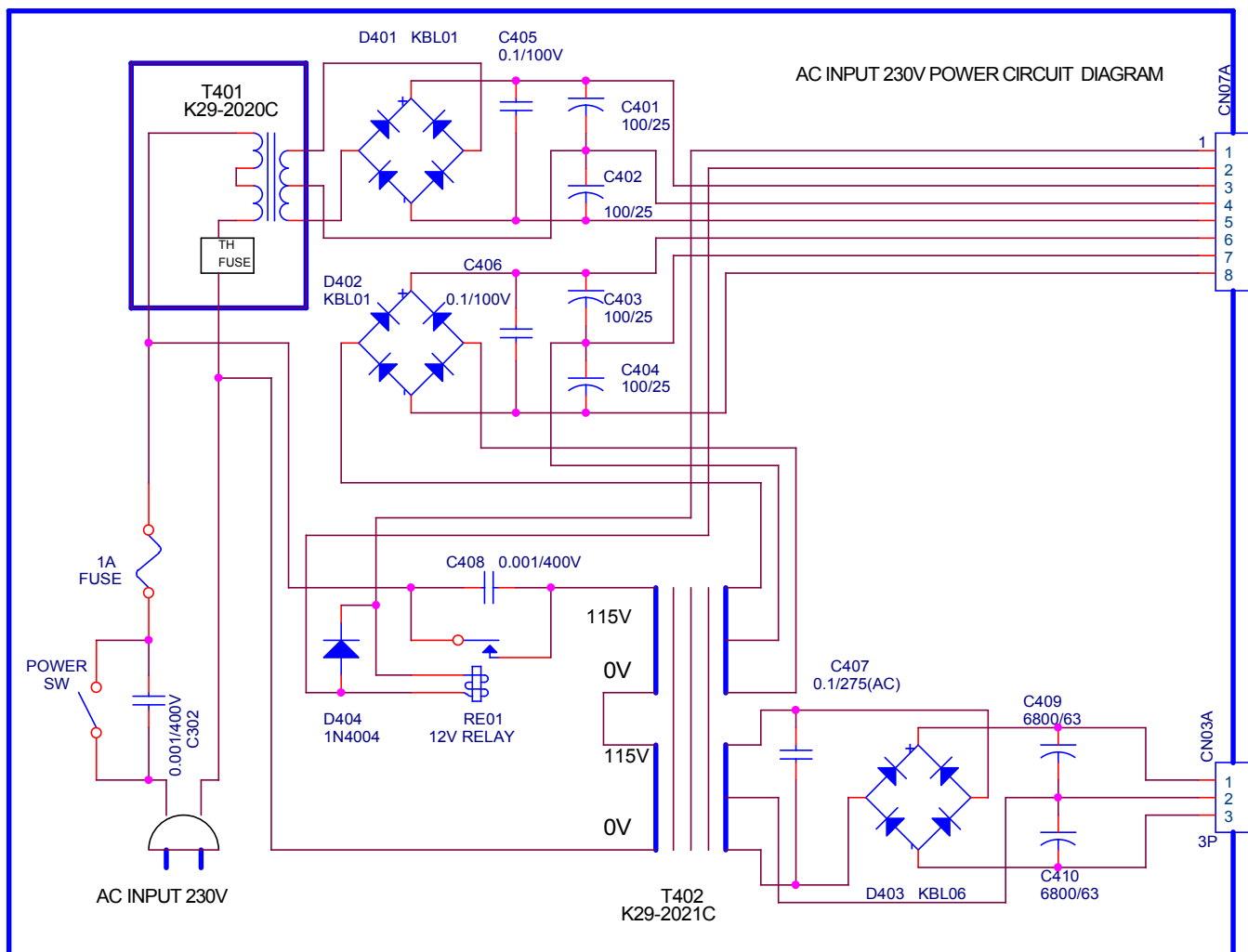




Title		
B1.36		
Size	Document Number	Rev
A3	<Doc>	DG-A
Date:	Wednesday, June 02, 2004	Sheet 1 of 1



Title		B1.36	
Size	A3	Document Number	<Doc>
Date:	Wednesday, June 02, 2004	Sheet	1 of 1
			Rev DG-A

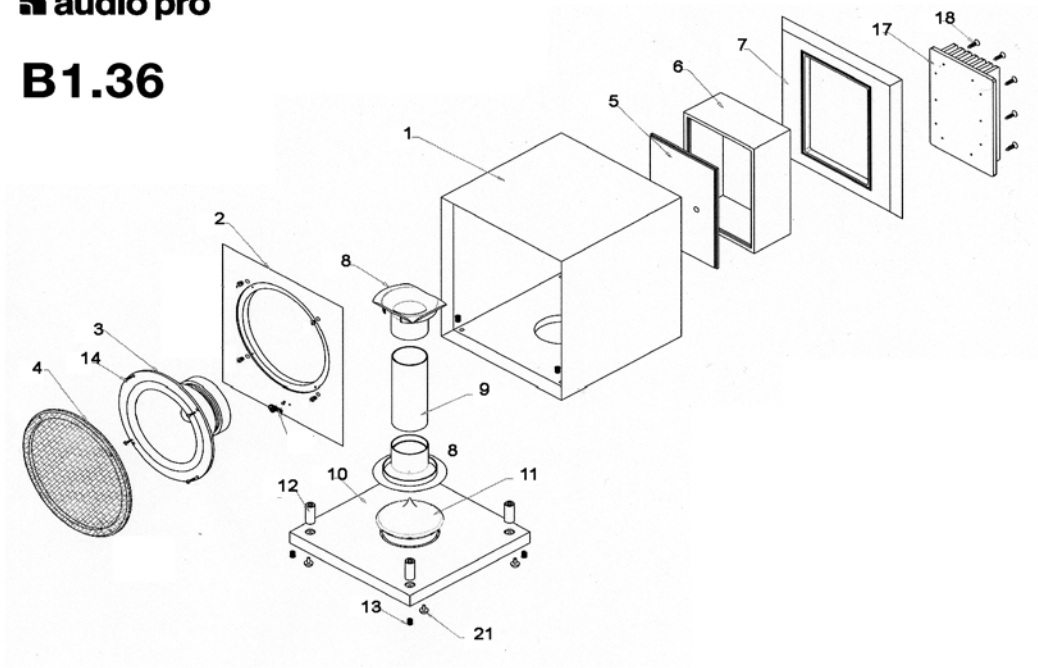


This page describes the different circuit parts of the different AC input voltage AMP

Title		B1.36
Size	Document Number	Rev
A3	<Doc>	DG-A
Date:	Wednesday, June 02, 2004	Sheet 1 of 1

audio pro

B1.36



Ref no	Part no	Description	Qty	Available Y/N
1		Wrap board	1	N
2		Front board	1	N
3	B1.35 B	Woofer	1	Y
4	GRI-69	Front grille	1	Y
5		Support board	1	N
6		Wrap board	1	N
7		Back board	1	N
8	Air Flow 69	BX port	2	Y
9		Paper tube 152mm	1	Y
10		Wood base	1	N
11		Bass Eq	1	Y
12		Spacer 48mm	4	Y
13		Insert nut	4	y
14		Screw 4x20 head 8	4	Y
18		Amplifier (see separate parts list)	1	N
19		Screw 4x20	10	Y
20		ACE BASS badge	1	Y
21		Rubber feet 20Øx10	4	Y
22	K31-3005	Blue led (mounted in pos 20)	1	Y

Parts list B1.36 Europe 230V 50Hz		
POSITION	PART NO	DESCRIPTION
B1.36 AMP ASSY		
RED LED POWER	ADL-6S702	LED RED 5MMD
Q208	ATR-2SB817	TR 2SB817 (A1492)
Q209	ATR-2SC3421	TR 2SC3421
Q207	ATR-2SD1047	TR 2SD1047 (C3856)
POWER SWITCH CAPACITOR	ECW-400V102K	CAP Y-SUPPRESSOR 0.001UF/400V +-10%
LED BUSHING	EMX-1018	LED BUSHING 5MM
POWE CORD BUSHING	EMX-7005-K	AC CORD BUSER ST-100N
FUSE HOLDER	FUH-1006	FUSE HOLDER 5*20MM VDE/UL OP520
FUSE	FUS-01-1001SC	FUSE VDE/UL 5*20 1A/250V TSD
BINDING POST RED	JK1-L01-G7013	BIND POST GOLDEN RED D=6mm
BINDING POST BLACK	JK1-L01-G7014	BIND POST GOLDEN BLK D=6mm
BINDING POST BLACK PLUG	DM04P0002	PLUG FOR BINDING POST BLK
BINDING POST RED PLUG	DM04P0003	PLUG FOR BINDING POST RED
VR KNOB	M11-P605-02	VR-KNOB 18*16
POWER SWITCH	SWK-7009	SWROCK R-30NS RH SERIAL
VR101, LEVEL VR	VRR-7068	A50K*1 L=15MM
VR102, LOW PASS VR	VRR-7069	B20K*4 L=15MM
POWER CORD	WPC-7109	POWER CORD 6FT VDE
T402, MAIN TRANSFORMER	XFM-3013	XFORMER(K29-2021C) AC 28.0*2 FOR B.5
SPEAKER IN / OUT PCB		
X-OVER CAPACITOR	ECJ-100A107K	CAP ELNP 100V 100UF +-10%(A TYPE)
MISCELLANEOUS		
BLUE LED KIT INCL ZENER DIODE	K31-3005	LED BLUE 5MMD
LED BUSHING FOR BLUE LED	EMX-1018	LED BUSHING 5MM
RCA CABLE 6M	WAS-7398	WIRE ASS'Y 1P RCA PLUG 6M BLK GOLDEN

Parts list B1.36 Europe 230V 50Hz		
POSITION	PART NO	DESCRIPTION
POWER AMP PCB		
D201,D202	ADD-1N4148	DIODE, 1N4148
ZD201	ADZ-UZ3.3BM	DIODE ZENER UZ 3.3BM 1/2W
IC201	AIC-TL071	IC TL071(TI)
IC202	AIC-TL072	IC DUAL OP AMP TL072
Q210,Q202	ATR-2SA1015	TR 2SA1015
Q206	ATR-2SA1358	TR 2SA1358
Q211,Q201	ATR-2SC1815	TR 2SC1815
Q205	ATR-2SC3421	TR 2SC3421
Q204	ATR-BF422	TR BF422
Q203	ATR-BF423	TR BF423
C202	ECD-050T221M	CAP, CER 220PF 50V +/-20% P5
C201	ECD-050T222M	CAP CER 50V 0.0022uF +-20%
C203,C204	ECD-050T331M	CAP CER 50V 330P +-20%
C214	ECD-050T470M	CAP CER 50V 47P +-20%
C205	ECD-100T104M	CAP CER 100V 0.1UF +-20%
C207	ECE-025T107M	CAP, ELEC 100UF 25V +/-20%
C219,C220,C213	ECE-050T106M	CAP, ELEC 10uF 50V +-20% P5
C211	ECZ-063T105J-1	CAP MTLZ (BF074D) 63V 1uF +-5%
C208	ECZ-063T154J-1	CAP, POLYFILM 150NF 63V +/-5%
C209	ECZ-063T224J-1	CAP, POLY METL 220NF 63V +/-5%
C210	ECZ-063T334J-1	CAP MTLZ(ECQV) 63V 0.33uF +-5%
C212	ECZ-063T824J-1	CAP MTLZ (BF014D) 63V 0.82uF +-5%
R213	ERB-251Y221J	RES MO 1/4W Y 220 +-5%
R214,R215	ERB-251Y2R2J	RES MO 1/4W Y 2.2 +-5%
R204,R205	ERB-251Y391J	RES MO 1/4W Y 390 +-5%
R209,R210	ERB-251Y560J	RES MO 1/4W Y 56 +-5%
R216,R217	ERB-302KR22J	RES MO 3W K 0.22 +-5%
R206	ERC-121Y103J	RES, 10K OHM 1/6W +/-5%

Parts list B1.36 Europe 230V 50Hz		
POSITION	PART NO	DESCRIPTION
R240	ERC-121Y183J	RES CF 1/8W Y 18K +-5%
R237	ERC-121Y224J	RES, 220K OHM 1/8W +-5%
R239	ERC-121Y332J	RES, 3K3 OHM 1/6W +/-5%
R235	ERC-121Y333J	RES, 33K OHM 1/6W +/-5%
R201	ERC-121Y473J	RES, 47K OHM 1/6W +/-5%
R233,R234,R236,R203,R244	ERC-121Y562J	RES, 5K6 OHM 1/6W +/-5%
R207	ERC-251Y221J	RES, 220 OHM 1/4W +/-5%
R211	ERC-251Y222J	RES, 2K2 OHM 1/4W +/-5%
R208	ERC-251Y331J	RES CF 1/4W Y 330 +-5%
VR201,R242	ERC-251Y471J	RES CF 1/4W Y 470 +-5%
R241	ERD-502K0R10F	RES FR5W K 0.1 +-1%
R227	ERM-121Y1001F	RES MF 1/8W Y 1K +-1%
R224,R221	ERM-121Y1002F	RES MF 1/8W Y 10K +-1%
R228	ERM-121Y1802F	RES MF 1/8W Y 18K +-1%
VR202	ERM-121Y2550F	RES MF 1/8W Y 255 +-1%
R232	ERM-121Y2701F	RES MF 1/8W Y 2K7 +-1%
R231,R226	ERM-121Y4701F	RES MF 1/8W Y 4K7 +-1%
R223	ERM-121Y7500F	RES MF 1/8W Y 750 +-1%
R225	ERM-121Y8201F	RES MF 1/8W Y 8K2 +-1%
R229	ERM-121Y8202F	RES MF 1/8W Y 82K +-1%
R222	ERM-121Y8661F	RES MF 1/8W Y 8K66 +-1%
R230	ERM-251Y1182F	RES MF 1/4W 11.8K +-1%
R243	ERM-251Y4702F	RES MF 1/4W Y 47K +-1%

Parts list B1.36 Europe 230V 50Hz		
POSITION	PART NO	DESCRIPTION
15V POWER SUPPLY PCB		
D306.D307	ADD-1N4004	DIODE, 1N4004
IC304.IC306	AIC-KA7815	IC KA7815
IC303.IC305	AIC-KA7915	IC KA7915
Q301	ATR-2SC3421	TR 2SC3421
C301-308	ECE-025T227M	CAP, ELEC 220UF 25V +/-20%
R301	ERB-202K101J	RES MO 2WK 100 +-5%
R302	ERB-202K151J	RES MO 2W K 150 +-5%
R303	ERC-121Y103J	RES, 10K OHM 1/6W +/-5%
R304	ERC-121Y473J	RES, 47K OHM 1/6W +/-5%
POWER SUPPLY PCB		
D403	ADB-KBU6G	DIODE BRIDGE KBU6G 6A/400V
D401.D402	ADB-W02	DIODE BRIDGE W02 1.5A/200V
D404	ADD-1N4004	DIODE, 1N4004
RE01	ARL-01-7002	RELAY 12V 1P1T MIT-SH-112LM
C405,C406	ECD-150T104M	CAP CER 150V 0.1uF+-20%
C401-C404	ECE-025T107M	CAP, ELEC 100UF 25V +/-20%
C409.C410	ECE-063V688M-2	CAP ELE 63V 6800uF+-20% 105°C
C407	ECW-275V104K	X-CAP 14104 0.1uF/275V
C408	ECW-400V102K	CAP Y-SUPPRESSOR 0.001UF/400V +-10%
T401, STAND BY TRANSFORMER	XFM-3012	XFORMER (K29-2020C) AC 15.0V*2

Parts list B1.36 Europe 230V 50Hz		
POSITION	PART NO	DESCRIPTION
PRE AMP PCB		
D101,102	ADD-1N4148*	DIODE, 1N4148
ZD101	ADZ-UZ3.3BM	DIODE ZENER UZ 3.3BM 1/2W
IC101-105	AIC-TL072	IC DUAL OP AMP TL072
Q103	ATR-2SC1815	TR 2SC1815
Q102	ATR-2SD655E	TR 2SD655E
Q101	ATR-2SK363	TR 2SK363
C105,115	ECD-050T470M	CAP CER 50V 47P +-20%
C122	ECE-025T107M	CAP, ELEC 100UF 25V +/-20%
C117-120	ECE-050T106M	CAP, ELEC 10uF 50V +-20% P5
C116	ECE-050T107M	CAP, ELEC 100UF 50V +/-20% 85°C
C114	ECJ-050T106M	CAP ELNP 50V 10uF +-20%
C123	ECJ-050T475M	CAP ELNP 50V 4.7uF +-20%
C101,C102	ECM-100T102J	CAP, MYLAR 1000PF 100V +/-5% P5
C107,108	ECM-100T104J	CAP, MYLAR 100NF 100V +/-5%
C103,104,136	ECM-100T333J	CAP, MYLAR 33NF 100V +-5% P5
C111	ECM-100T823J	CAP MYLAR 100V 0.082 +-5%
C110,C143,C144	ECZ-063T104J-1	CAP, POLYFILM 0.1uF 63V +/-5%
C112	ECZ-063T224J-1	CAP, POLY METL 220NF 63V +/-5%
C138	ECZ-063T474J-1	CAP, POLYFILM 470NF 63V +/-5%
R144	ERB-202K220J	RES MO 2W K 22 +-5%
R111,112	ERB-501Y102J	RES MO 1/2W Y 1K +-5%
R143	ERC-121Y101J	RES, 100 OHM 1/6W +/-5%
R135	ERC-121Y103J	RES, 10K OHM 1/6W +/-5%
R136,R141,R126	ERC-121Y104J	RES, 100K OHM 1/6W +-5%
R137	ERC-121Y123J	RES, 12K OHM 1/6W +/-5%
R127	ERC-121Y154J	ERC CF 1/8W Y 150K +-5%
R101,131,R102	ERC-121Y221J	RES, 220 OHM 1/6W +/-5%
R132,R145	ERC-121Y223J	RES, 22K OHM 1/6W +/-5%

Parts list B1.36 Europe 230V 50Hz		
POSITION	PART NO	DESCRIPTION
R116	ERC-121Y393J	RES, 39K OHM 1/6W +/-5%
R133,R130	ERC-121Y395J	RES CF 3M9 1/8W +/-5%
R115	ERC-121Y472J	RES, 4K7 OHM 1/6W +/-5%
R140	ERC-121Y473J	RES, 47K OHM 1/6W +/-5%
R134,R129	ERC-121Y562J	RES, 5K6 OHM 1/6W +/-5%
R119	ERM-121Y1003F	RES MF 1/8W Y 100K +/-1%
R125	ERM-121Y1102F	RES MF 1/8W Y 11K +/-1%
R105,106	ERM-121Y1502F	RES MF 1/8W Y 15K +/-1%
R113,114,121-124,R103,104	ERM-121Y1802F	RES MF 1/8W Y 18K +/-1%
R142	ERM-121Y2001F	RES MF 1/8W Y 2K +/-1%
R128	ERM-121Y2701F	RES MF 1/8W Y 2K7 +/-1%
R118	ERM-121Y3902F	RES MF 1/8W Y 39K +/-1%
R107-110	ERM-121Y4303F	RES MF 1/8W Y 430K +/-1%
JK1, RCA JACK	JK3-L02-7006	JACK RCA L 2P
SW101,SW102. AUTO / MAF SWITCH	SWS-G7002	TOGGLE SW T8019L-TECQ