



SERVICE MANUAL

PRODUCT LINE:

Simply Cinema

MODEL NUMBER:

SCS 140, SCS 146,

DESIGN GOAL: Bring the thrill of live performance and movie sound to the home environment by calling on JBL's professional engineering leadership.

SATELLITE TYPE: Titanium-laminate-dome tweeter, sealed enclosure

SUBWOOFER TYPE: Bass-reflex enclosure

PORT DESIGN: FreeFlow™ flared

PROFESSIONAL REFERENCE: Cinema Loudspeaker Series

JBL

SPECIFICATIONS

SCS 140/SCS 146 Satellite and SCS 146 Surround Back

Frequency Response (-6dB):	120Hz – 20kHz
Sensitivity (2.83V/1m):	86dB
Nominal Impedance:	4 Ohms
Recommended Amplifier Power	10 – 50 Watts RMS per Channel
Drive Units:	12mm Titanium Laminate Dome Video-shielded HF 75mm Paper Cone Video-shielded Midrange
Dimensions (H x W x D):	111mm x 81mm x 95mm (4.4" x 3.2" x 3.7")
Weight:	0.5kg (1.1lb)

SCS 140/SCS 146 Center

Frequency Response (-6dB):	120Hz – 20kHz
Sensitivity (2.83V/1m):	88dB
Nominal Impedance:	4 Ohms
Recommended Amplifier Power	10 – 50 Watts RMS per Channel
Drive Units:	12mm Titanium Laminate Dome Video-shielded HF Dual 75mm Paper Cone Video-shielded Midrange
Dimensions (H x W x D):	83mm x 194mm x 95mm (3.3" x 7.6" x 3.7")
Weight:	0.85kg (1.88lb)

SCS 140 Active Subwoofer

Low Frequency Cut-off:	35Hz
High Frequency Cut-off:	160Hz
Built-in Power Amplifier:	100 Watts RMS
Drive Unit:	200mm Paper Cone Long Throw Driver. Bass Reflex Enclosure
Dimensions (H x W x D):	410mm x 280mm x 376mm
Weight:	12.7kg

SCS 140/SCS 146 System

Frequency Response (-6dB):	35Hz – 20kHz
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Refinements may be made on occasion to existing products without notice, but will always meet or exceed original specifications unless otherwise stated.

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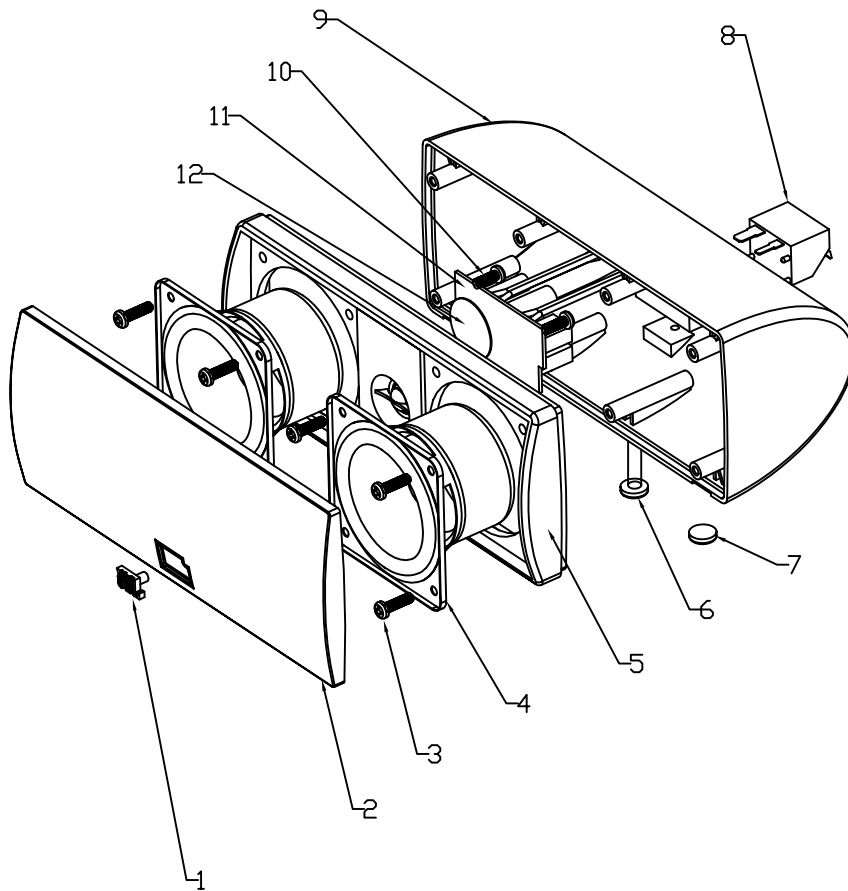
PRO SOUND
COMES HOME™

MODEL NUMBER:



H A Harman International Company

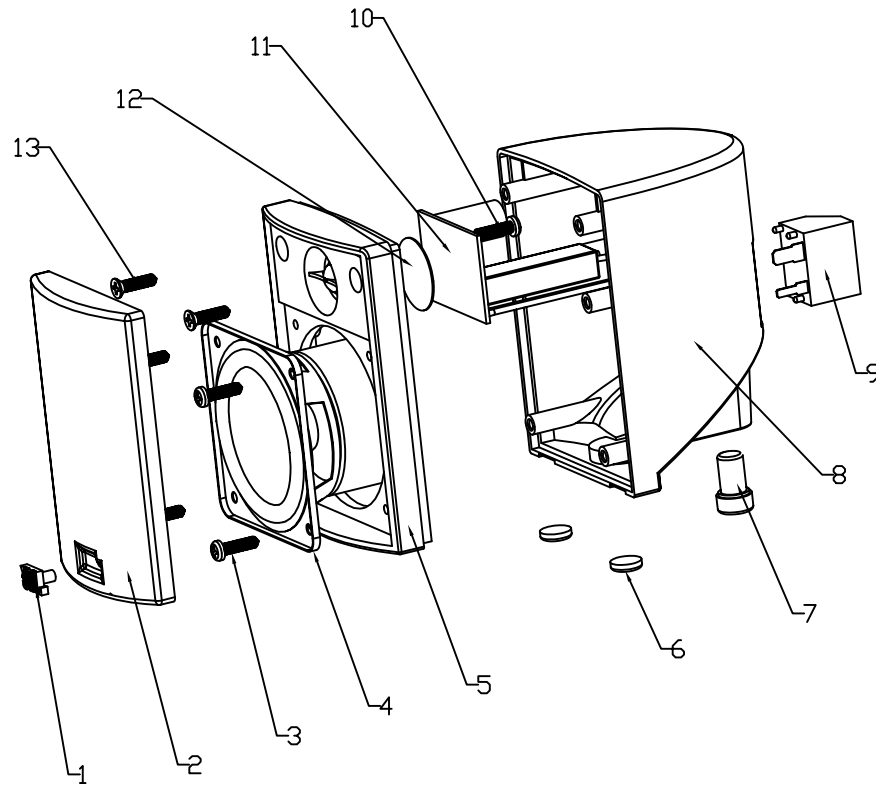
SCS 140/146 CENTER



2003/10/22

ITEM	PART NAME	PART NO.	QTY,
12	WASHER	231-000-00155	1
11	CROSSOVER	013-AA00-00304	1
10	SCREW	352-AM03008D035	2
9	CENTRE-DOWN	247-020-00112	1
8	PUSH-TERMINAL	215-000-00547	1
7	RUB-BASE	320-RUB-00053	2
6	SCREW	351-GM04025A466	1
5	CENTRE-TOP	243-020-00169	1
4	2"DRIVER	22PF48JA-HW03	2
3	SCREW	352-CM04016A186	8
2	GRILLE	329-020-00530	1
1	LOGO	316-000-00099	1

SCS-140/146-SAT



2003/10/22

ITEM	PART NAME	PART NO.	QTY,
13	SCREW	352-DM04016D185	2
12	WASHER	231-000-00155	1
11	CROSSOVER	013-AA00-00303	1
10	SCREW	352-AM03008D035	2
9	PUSH-TERMINAL	215-000-00547	1
8	SAT-DOWN	247-020-00108	1
7	RUB-BASE	320-RUB-00025	1
6	RUB-BASE	320-RUB-00053	2
5	SAT-TOP	243-020-00165	1
4	2'DRTVER	22PF48JA-DW04	1
3	SCREW	352-CM04016D186	4
2	GRILLE	329-020-00529	1
1	LOGO	316-000-00099	1

SCS140 SCS146 SATELLITES

part number	part name
SCS146SI/230 SAT	SAT SCS146 COMPLETE
SCS140SI/230 SAT	SAT SCS140 COMPLETE
010-7610-00374	Amp JBL 100W SCS140 for 230V
013-AA00-00303	Crossover SCS135-E/140/146 SAT (xr5145)
22PF48JA-DW04	Woofers 2" 1/4 4Ω JBL SCS140/146 SAT
316-000-00099	Logo for JBL
329-020-00529	Grille (silver) 105.4*73.4*13.8
247-020-00108	Rear plastic cover (silver) 113*80*73.5
320-RUB-00053	Rubber footbase 11φ
320-RUB-00025	Rear black footbase 13*13-5t
243-020-00165	Front plastic cover SCS140/146

SCS140 SCS146 CENTER

part number	part name
SCS146SI/230 CEN	CENTER SCS146 COMPLETE
SCS140SI/230 CEN	CENTER SCS140 COMPLETE
013-AA00-00304	Crossover SCS135-E/140/146 CENTER (xr5146)
22PF48JA-HW03	Woofers 19φ 2 1/4" 8Ω JBL SCS140/146 CENTER
215-000-00547	Terminal JBL SCS140/146 SAT CENTER
329-020-00530	Silver grille 187*73.4*13.8
247-020-00112	Rear plastic cover (silver) 194.94*80*73.5
243-020-00169	Silver panel 194.94*80*18.5

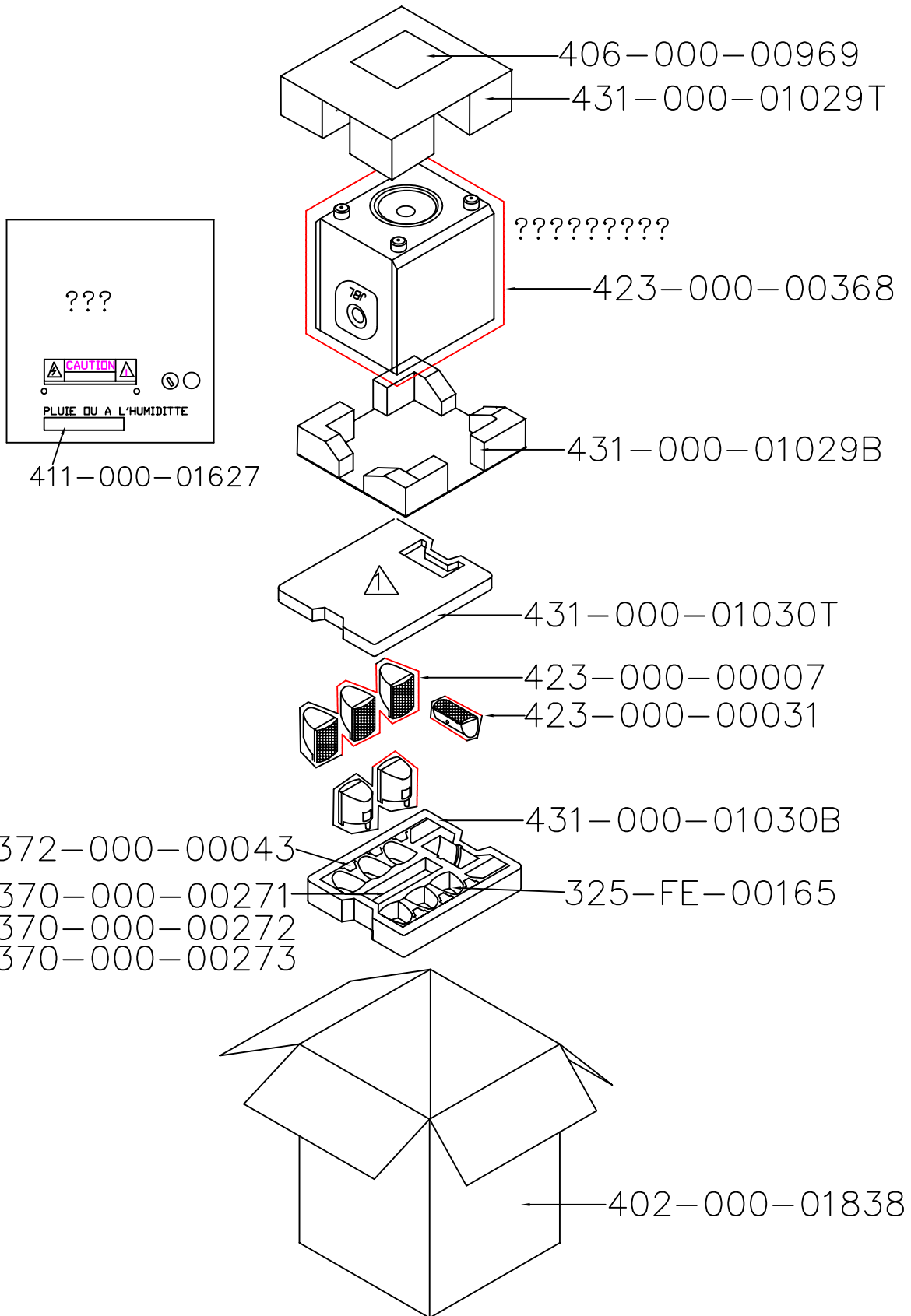
SCS140 SCS146 SUB

part number	part name
20MF10DAG-DW04	Woofers 8" 4Ω JBL SCS140 SCS146 SUB
010-7610-00376	Amp JBL 100W SCS146 for 230V

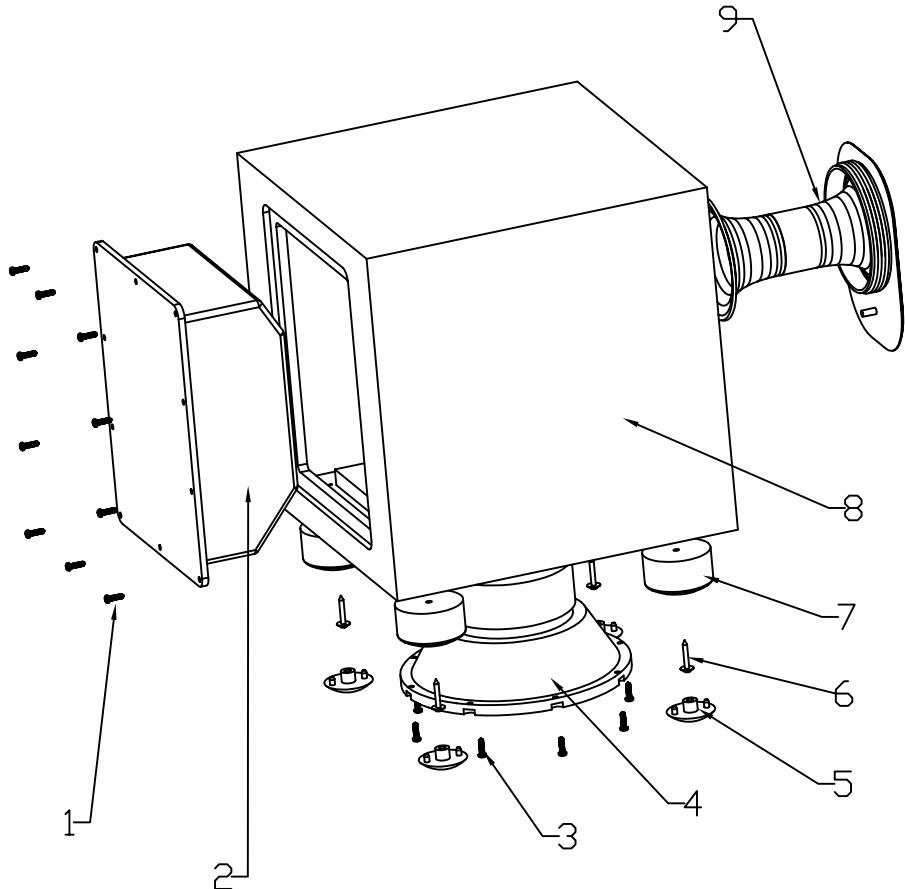
SCS140 SCS146 SYSTEM

part number	part name
325-FE-00165	Footbase bracket (silver)
372-000-00043	Hooker Silver Color
402-000-01836	PAP Gift Box for SCS140
402-000-01838	PAP Gift Box for SCS146
406-000-00969	PAP O/M for SCS140-SCS146-DSC1000
406-000-00969	PAP O/M for SCS140-SCS146-DSC1000

SCS 146SI/230



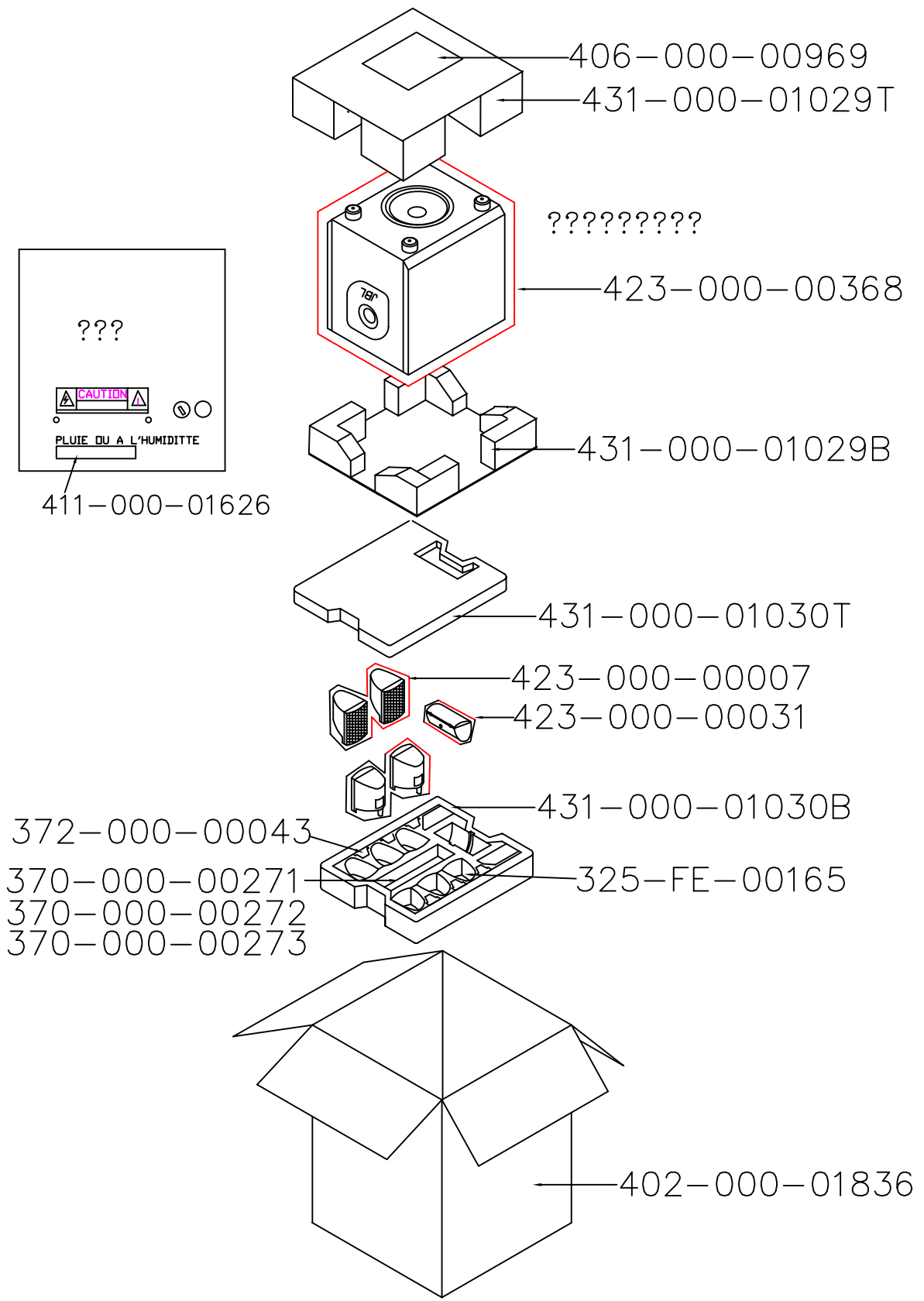
SCS-140/146-SUB



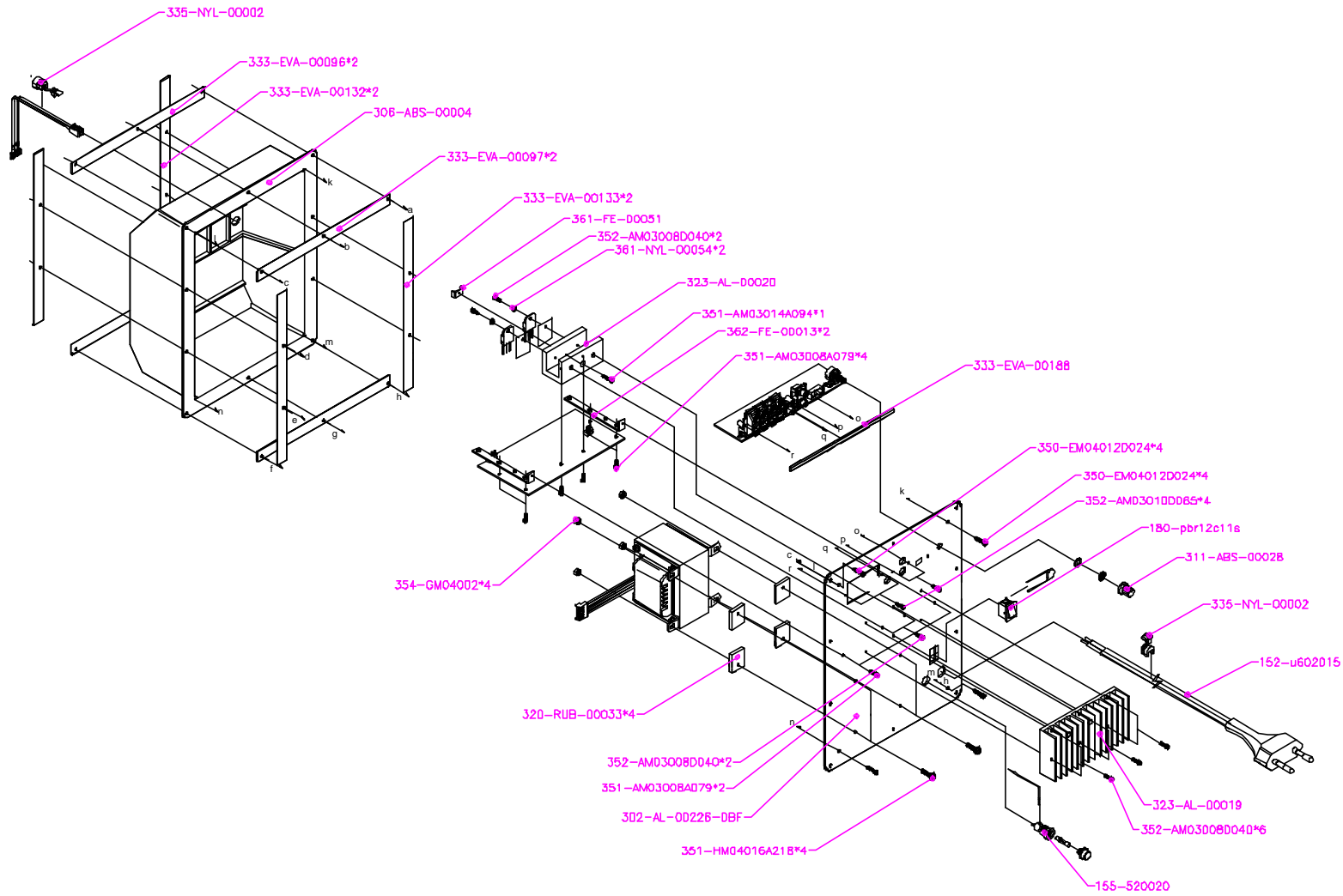
2003/10/21

ITEM	PART NAME	PART NO.	QTY,
9	TUBE-CUSTOM	249-ABS-00174	1
8	BODY	241-080-00602	1
7	FOOT	321-ABS-00008	4
6	SCREW	352-HM04030D500	4
5	RUB-BASE	321-ABS-00009	4
4	8"DRTVER	20MF10DAG-DW04	1
3	SCREW	352-FM04020D605	8
2	AMP	010-7610-00374	1
1	SCREW	352-AM04020D210	10

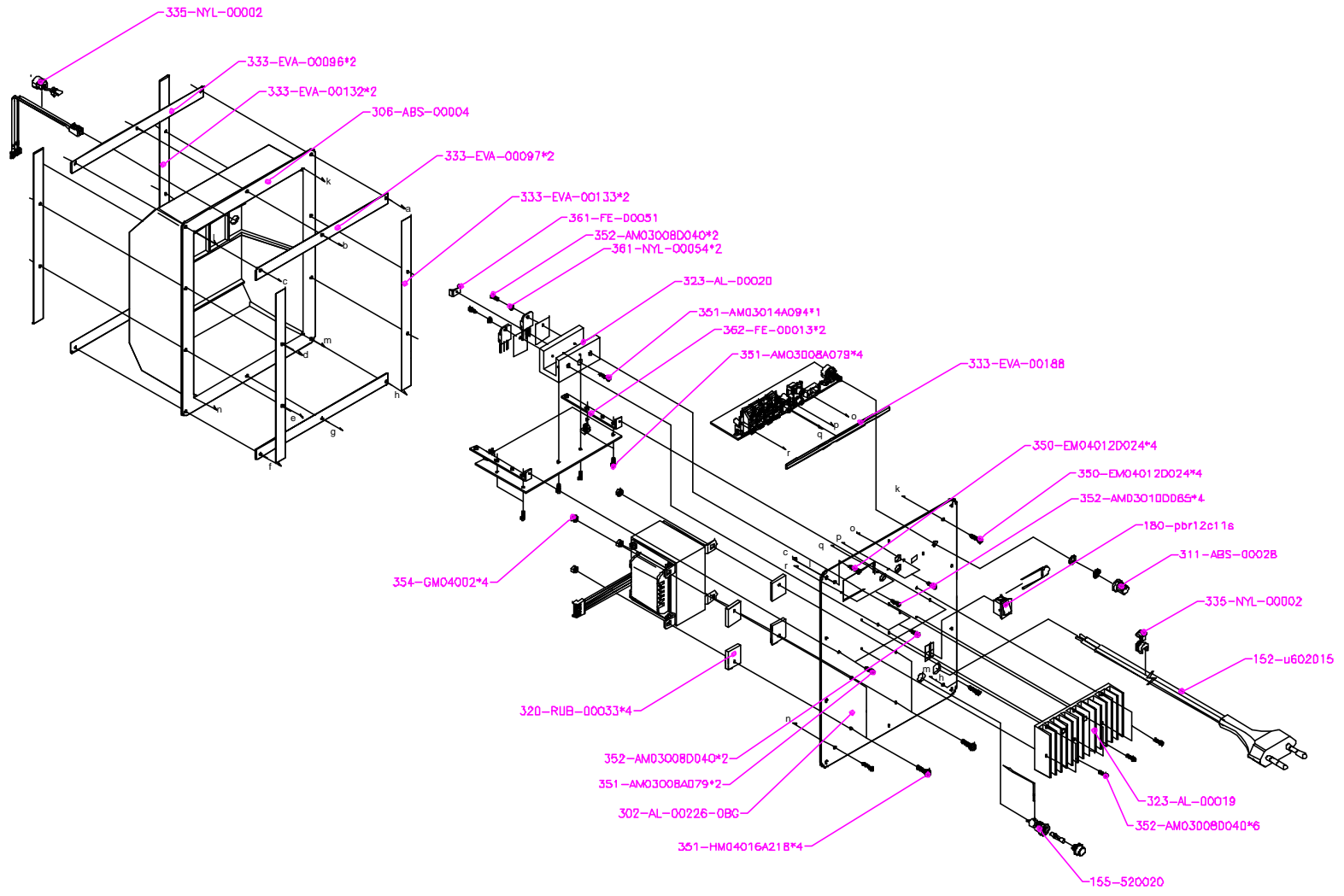
SCS 140SI/230



SCS140 amp



SCS146 amp



Model name: SCS140/146

No.	Part number	Description	Reference	Q'ty
01	051-A00374A	PCB ASS'Y OF SCS140/146		1PC
02	351-AM03008A079	Screw M3*8		6PCS
03	351-BM03012A088	Screw M3*12		1PC
04	351-HM04016A218	Screw M4*16		4PCS
05	354-GM04002	Screw sheet M4		4PCS
06	352-AM03008D040	Screw ϕ 3*8 Type B		8PCS
07	352-AM03010D065	Screw ϕ 3*10 Type P		4PCS
08	350-EM04012D024	Screw 4 ϕ *12		4PCS
09	150-e8604106	Transformer EI-86 230V/50Hz		1PC
10	152-v602026	Power wire SP-021A 6FT VDE		1PC
11	154-v12506t0	Fuse TSD 1.25A 250V VDE		1PC
12	155-520020	Fuse connector R3-11		1PC
13	162-10082007	WIRE RED 18AWG 80mm		1PC
14	162-a040d001	Speaker wire #1015 400mm		1PC
15	163-11009	Mini tighen wire 100mm		2PCS
16	176-wjce1	Terminal CE-1		1PC
17	180-prf1003s	Power switch RF-1003-BB2-OHA	SW101	1PC
18	193-2m1813	PiezoTO-220 18*13mm	Q120,Q124	2PCS
19	306-ABS-00714	Plastic cover with metal spray 268*213*102		1PC
20	361-FE-00004	IC HOLDER 26.9*12*1.4T		1PC
21	323-AL-00019	HEAT SINK 117.5*60*25		1PC
22	311-ABS-00028	Plastic knob 46077-W P.V.C.		1PC
23	302-AL-00226-0BF	Alu. Panel 215*270*2.5t SCS140		1PC
23	302-AL-00226-0BG	Alu. Panel 215*270*2.5t SCS146		1PC
24	335-NYL-00002	Wire lock 4K-4 NO-BB		2PCS
25	333-EVA-00096	EVA gasket wide side 213*15*2.0mm		2PCS
26	333-EVA-00097	EVA gasket wide side 213*15*1.0t		2PCS
27	333-EVA-00132	EVA gasket long side 238*15*2.0mm		2PCS
28	333-EVA-00133	EVA gasket long side 238*15*1.0t		2PCS
29	333-EVA-00220	EVA gasket long side 225*15*1t UL		1PC
30	320-RUB-00033	Rubber gasket 25*21*4t		4PCS
31	413-000-00188	SPEAKER label 4 OHM 45*8mm		1PC
32	413-000-00540	Label, MADE IN CHINA		1PC
33	333-EVA-00188	EVA gasket 170x5x1t		1PC
34	362-FE-00013	PCB Gasket L TYPE t=1.6mm S.P.C.C 89*9*1.6T		2PCS

Electric parts

No.	Part number	Description	Reference	Q'ty
02	351-AM03014A094	Screw M3*14		1PC
03	352-AM03008D040	Screw ϕ 3*8 Type B		4PCS
04	110-10821jk2	Resistor 820 Ω 1W \pm 5% 10mm	R132	1PC
05	110-122r2j15	Resistor 2.2 Ω 1/2W \pm 5% 15mm	R127	1PC
06	113-500r1j10	Cement resistor 0.1 Ω 5W \pm 5%	R121,R122	2PCS
07	114-03302m0	Semi-fixed resistor 3K 0.3W \pm 20%	R138	1PC
08	115-h503a101	Variable resistor D16 50K/1 A	VR201	1PC
09	135-4478m35	Electrolytic cap 4700uF 35V \pm 20%	C121,C122	2PCS
10	135-4478m50	Electrolytic cap 4700uF 50V \pm 20%	C133,C134	2PCS
11	156-h010010	Tube 1 ψ *10mm	Q101,Q115	2PCS
12	162-10202001	Wire 26AWG 1007 200mm RED		1PC
13	171-udhss124d	Relay 5A 24V UDH-SS124D	RY101	1PC
14	174-0rcb202v	Jack RCA JACK RCB-202V	JK202	1PC
15	174-0rca108nb	RCA JACK RCA108NB 1P	JK203	1PC
16	174-2rsp108v	Speaker terminal 8 PIN RSP-108V	JK201	1PC
17	175-1c07v01	Connector 7PIN PITCH=2.5mm	P101	1PC
18	175-1d02v01	Connector 2PIN PITCH=3.96mm	P102	1PC
19	175-1d05v01	Connector 5PIN 3.96mm	P103	1PC
20	180-tms7210v	SWITCH SLIDE 6PIN MS7210V	SW201	1PC
21	190-06m4558d	I.C. OPA 4558D	U101,U203	2PCS
22	190-16tl074cn	I.C TL074CN ST	U201,U202	2PCS
23	192-021c1815gr	Transistor 2SC1815GR	Q101,Q115	2PCS
24	192-991d669a	TransistorHI-SINCERITY HSD669A	Q106	1PC
25	192-021tip35c	Transistor TIP35C	Q107	1PC
26	192-992b649t	Transistor HSB649T	Q105	1PC
27	192-022tip36c	Transistor TIP36C	Q108	1PC
28	192-161tip41c	Transistor TIP41C NPN SGS	Q124	1PC
29	192-162tip42c	Transistor TIP42C PNP SGS	Q120	1PC
30	192-201d882y	Transistor KSD882Y	Q117	1PC
31	192-202b772y	Transistor KSB772Y	Q119	1PC
32	193-3m2520	Piezo TO-3P 25x20mm	Q107,Q108	2PCS
33	195-10204hgw	LED 204HGW 3 ϕ	D209	1PC
34	197-00kbl405	Bridge rectifier 4A 500V KBL40	D110,D115	2PCS
35	197-101n4002	Diode 1N4002	D104	1PC
36	197-101n5402	Diode 1N5402	D111,D112	2PCS
37	361-FE-00051	Transistor holder 14.2*8.0*5.2 t=1.6mm		1PC
38	323-AL-00020	HEAT SINK 65*32*31		1PC
39	361-NYL-00054	Transistor isolated sheet		2PCS
01	104-sub135e00	PCB OF SUB135E		1PC
02	110-14122j26	Resistor 1.2K 1/4W \pm 5% CF 26mm TAP	R265	1PC
03	110-14472j26	Resistor 4.7K 1/4W \pm 5% CF 26mm TAP	R201,R202	2PCS
04	110-14560j26	Resistor 56 Ω 1/4W \pm 5% CF 26mm TAP	R117	1PC
05	110-16101j26	Resistor 100 Ω 1/6W \pm 5% CF 26mm TAP	R120,R213,R214,R215	4PCS
06	110-16102j26	Resistor 1K 1/6W \pm 5% CF 26mm TAP	R124,R166,R254,R264	4PCS
07	110-16103j26	Resistor 10K 1/6W \pm 5% CF 26mm TAP	R133,R134,R209,R212,R216,R217,R220,R221,R222,R225,R226,R228,R229,R230,R232,R235,R240,R260	18PCS
08	110-16104j26	Resistor 100K 1/6W \pm 5% CF 26mm TAP	R163,R164,R231	3PCS
09	110-16105j26	Resistor 1M 1/6W \pm 5% CF 26mm TAP	R143,R259	2PCS
10	110-16123j26	Resistor 12K 1/6W \pm 5% CF 26mm TAP	R135,R139,R165	3PCS
11	110-16124j26	Resistor 120K 1/6W \pm 5% CF 26mm TAP	R233	1PC
12	110-16151j26	Resistor 150 Ω 1/6W \pm 5% CF 26mm TAP	R253	1PC
13	110-16152j26	Resistor 1.5K 1/6W \pm 5% CF 26mm TAP	R103,R123,R136,R137,R141,R142,R153	7PCS
14	110-16153j26	Resistor 15K 1/6W \pm 5% CF 26mm TAP	R118,R145,R152,R154,R234	5PCS
15	110-16154j26	Resistor 150K 1/6W \pm 5% CF 26mm TAP	R131,R252	2PCS
16	110-16181j26	Resistor 180 Ω 1/6W \pm 5% CF 26mm TAP	R111,R114	2PCS

Electric parts

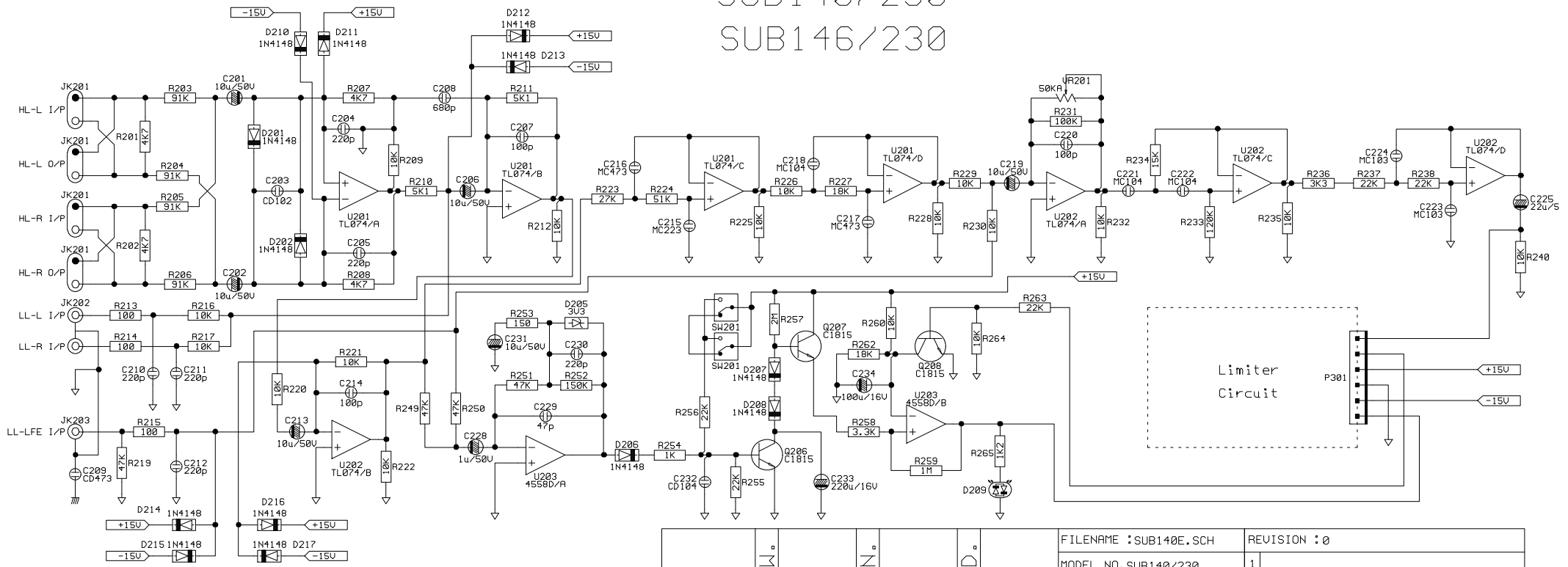
No.	Part number	Description	Reference	Q'ty
17	110-16183j26	Resistor 18K 1/6W ±5% CF 26mm TAP	R227	1PC
18	110-16223j26	Resistor 22K 1/6W ±5% CF 26mm TAP	0,R237,R238,R255,R256,R262,R263	12PCS
19	110-16273j26	Resistor 27K 1/6W ±5% CF 26mm TAP	R223	1PC
20	110-16205j26	Resistor 2M 1/6W ±5% CF 26mm TAP	R257	1PC
21	110-16332j26	Resistor 3.3K 1/6W ±5% CF 26mm TAP	R106,R107,R144,R236,R258	5PCS
22	110-16392j26	Resistor 3.9K 1/6W ±5% CF 26mm TAP	R105,R108	2PCS
23	110-16393j26	Resistor 39K 1/6W ±5% CF 26mm TAP	R126	1PC
24	110-16470j26	Resistor 47Ω 1/6W ±5% CF 26mm TAP	R112,R113,R115,R116	4PCS
25	110-16471j26	Resistor 470Ω 1/6W ±5% CF 26mm TAP	R140,R161,R162	3PCS
26	110-16472j26	Resistor 4.7K 1/6W ±5% CF 26mm TAP	R110,R125,R130,R147,R150,R157,R159,R207,R208	9PCS
27	110-16473j26	Resistor 47K 1/6W ±5% CF 26mm TAP	R101,R219,R249,R250,R251	5PCS
28	110-16512j26	Resistor 5.1K 1/6W ±5% CF 26mm TAP	R210,R211	2PCS
29	110-16513j26	Resistor 51K 1/6W ±5% CF 26mm TAP	R224	1PC
30	110-16563j26	Resistor 56K 1/6W ±5% CF 26mm TAP	R104	1PC
31	110-16681j26	Resistor 680Ω 1/6W ±5% CF 26mm TAP	R148,R151	2PCS
32	110-16682j26	Resistor 6.8K 1/6W ±5% CF 26mm TAP	R109	1PC
33	110-16913j26	Resistor 91K 1/6W ±5% CF 26mm TAP	R203,R204,R205,R206	4PCS
34	130-sl101k503	Disc capacitor 100P 50V SL ±10% TAP		5PCS
35	130-2b102k503	Disc capacitor 1000P 50V ±10% TAP	C116,C141,C203	3PCS
36	130-2b221k503	Disc capacitor 220P 50V ±10% TAP	C204,C205,C210,C211,C212,C230	6PCS
37	130-2b681k503	Disc capacitor 680P 50V ±10% TAP	C208	1PC
38	130-2f104z503	Disc capacitor 0.1U 50V +80/-20% TAP	C108,C113,C115,C119,C137,C138,C232,C235,C236,C237,C239,C240,C241	13PCS
39	130-3f473m503	Disc capacitor 0.047U 50V ±20% TAP	C106,C209	2PCS
40	130-sl470k503	Disc capacitor 47P 50V ±10% TAP	C229	1PC
41	132-103j503	Mylar capacitor 0.01U 50V ±5% TAP	C223,C224	2PCS
42	132-104j503	Mylar capacitor 0.1U 50V ±5% TAP	C107,C218,C221,C222	4PCS
43	132-223ja03	Mylar capacitor 0.022uF 100V ±5% TAP	C123,C124,C125,C126,C127,C128,C131,C132,C215	9PCS
44	132-473j503	Mylar capacitor 0.047U 50V ±5% TAP	C216,C217	2PCS
45	135-3105m50	Electrolytic cap 1U 50V ±20% TAP	C105,C112,C228	3PCS
46	135-3106m50	Electrolytic cap 10uF 50V ±20% TAP	C201,C202,C206,C213,C219,C231	6PCS
47	135-3107m16	Electrolytic cap 100uF 16V ±20% TAP	C109,C110,C117,C120,C234,C238,C242	7PCS
48	135-3107m50	Electrolytic cap 100U 50V ±20% TAP	C135,C136	2PCS
49	135-3226m50	Electrolytic cap 22U 50V ±20% TAP	C114,C118,C225	3PCS
50	135-3227m10	Electrolytic cap 220U 10V ±20% TAP	C129,C130	2PCS
51	135-3227m16	Electrolytic cap 220U 16V ±20% TAP	C111,C233	2PCS
52	135-3476m25	Electrolytic cap 47U 25V ±20% TAP	C103	1PC
53	192-027c1815gr	Transistor 2SC1815GR TAP	Q102,Q111,Q112,Q113,Q118,Q123,Q126,Q206,Q207,Q208	10PCS
54	192-027c2235y	Transistor 2SC2235Y TAP	Q121	1PC
55	192-028a1015gr	Transistor 2SA1015GR TAP	Q114,Q116,Q122,Q127	4PCS
56	192-028a965y	Transistor 2SA965Y TAP	Q125	1PC
57	192-1672n5551	Transistor 2N5551 TAP	Q103,Q109	2PCS
58	192-1682n5401	Transistor 2N5401 AI-PNP 350V 500mA	Q104,Q110	2PCS

Electric parts

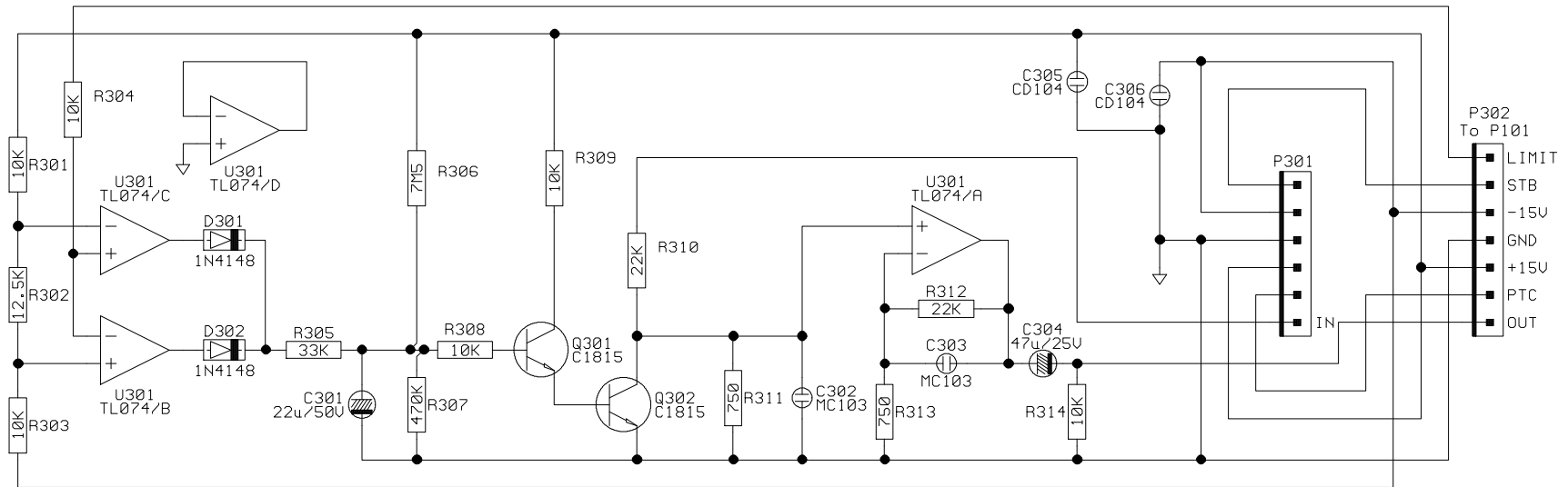
No.	Part number	Description	Reference	Q'ty
59	197-131n4148	Diode 1N4148 26mm TAP	4,D201,D202,D206,D207,D208,D2	19PCS
60	199-15000335	Zener Diode 3.3V 1/2W 52mm TAP	D102,D205	2PCS
61	199-15000625	Zener Diode 6.2V 1/2W 52mm TAP	D106,D107	2PCS
62	199-15001605	Zener Diode 16V 1/2W 52mm TAP	D109	1PC
63	161-506520	JUMPER WIRE 26mm TAP		68PCS

No.	Part number	Description	Reference	Q'ty
40	051-A00014B	PCB ASS'Y OF SCS135 LIMITER		1PC
02	162-50129001	CABLE ASS'Y 120mm AWG28 WHT	P302	1PC
03	175-9f40hr2	HR2*40		0.15PC
04	190-16tl074cn	I.C TL074CN ST	U301	1PC
05	162-10059001	Single wire 50mm WHITE UL1007		1PC
02	110-16103j26	Resistor 10K 1/6W ±5% CF 26mm TAP	4	6PCS
03	110-16223j26	Resistor 22K 1/6W ±5% CF 26mm TAP	R310,R312	2PCS
04	110-16333j26	Resistor 33K 1/6W ±5% CF 26mm TAP	R305	1PC
05	110-16474j26	Resistor 470K 1/6W ±5% CF 26mm TAP	R307	1PC
06	110-16751j26	Resistor 750Ω 1/6W ±5% CF 26mm TAP	R311,R313	2PCS
07	110-16755j26	Resistor 7.5M 1/6W ±5% CF 26mm TAP	R306	1PC
08	130-2f104z503	Disc capacitor 0.1U 50V +80/-20% TAP	C305,C306	2PCS
09	132-103j503	Mylar capacitor 0.01U 50V ±5% TAP	C302,C303	2PCS
10	135-3226m50	Electrolytic cap 22U 50V ±20% TAP	C301	1PC
11	135-3476m25	Electrolytic cap 47U 25V ±20% TAP	C304	1PC
12	192-027c1815gr	Transistor 2SC1815GR TAP	Q301,Q302	2PCS
13	197-131n4148	Diode 1N4148 26mm TAP	D301,D302	2PCS
14	161-506520	JUMPER WIRE 26mm TAP		6PCS
15	110-16153j26	Resistor 15K 1/6W ±5% CF 26mm TAP	R302	1PC

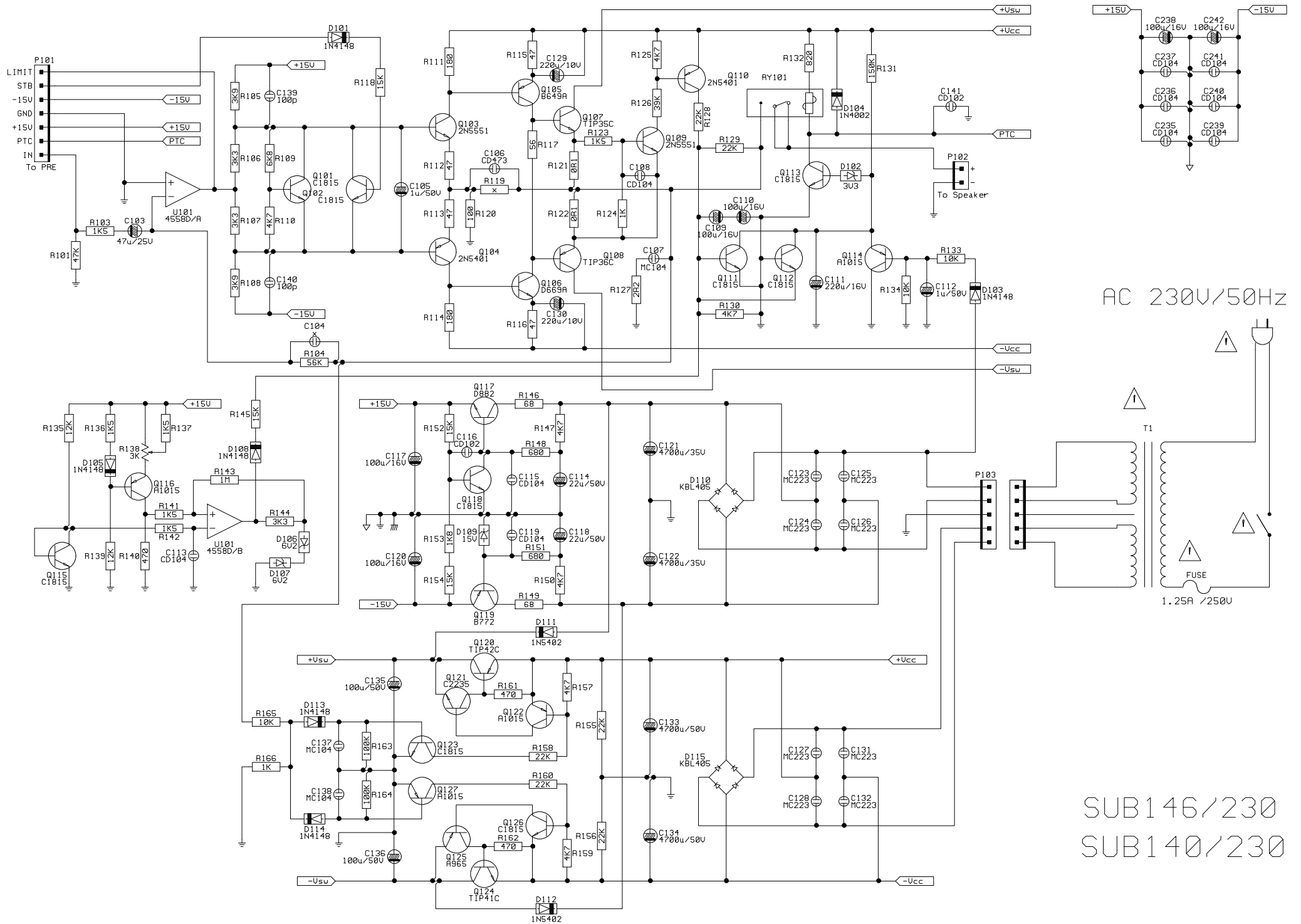
SUB140/230
SUB146/230



DRAW	DSGN	APVD	FILENAME : SUB140E.SCH	REVISION : 0
			MODEL NO. SUB140/230	1
			DWN BY : C.S.WANG	2
			DATE : 2003-07-02	3



LIMITER



AC 230V/50Hz

SUB146/230
SUB140/230

