

Service Manual

Model: L-12 (12-CHANNEL MIXING CONSOLE
WITH DIGITEL EFFECTS)



www.altoproaudio.com

Version: 1.1

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1. SPECIFICATION (L-12)

Mono input channels

Microphone input	electronically balanced, discrete input configuration
Frequency response	10Hz to 55kHz, +/-3dB
Distortion (THD&N)	0.005% at +4dBu, 1kHz

Gain range	0dB to 60dB(MIC),
SNR (Signal Noise Rated)	115dB

Line input	electronically balanced
Frequency response	10Hz to 55kHz, +/-3dB
Distortion (THD&N)	0.005% at +4dBu, 1kHz
Sensitivity range	+15dBu to -45dBu

Stereo input channels

Line input	Balanced/unbalanced
Frequency response	10Hz to 55kHz, +/-3dB
Distortion (THD&N)	0.005% at +4dBu, 1kHz

Impedances

Microphone input	1.4Kohm.
Channel Insert return	2.5Kohm.
All other inputs	10Kohm or greater.
Tape out	1Kohm.
All other output	120ohm.

Equalization

Hi shelving	+/-15dB @12kHz
Mid bell(mono)	+/-15dB @100Hz to 8kHz
Hi Mid (stereo)	+/-15dB @3kHz
Mid Low (stereo)	+/-15dB @500Hz
Low shelving	+/-15dB @80Hz
Low Cut filter	75Hz, 18dB/oct.

DSP Section

A/D and D/A converters	24 bit
DSP resolution	24 bit
Type of effects	Hall, Room, Vocal & Plate REVERBS Mono & Stereo DELAY (max DELAY TIME 500ms) Chorus, Flanger & Vibrato MODULATIONS REV+DELAY, REV+CHORUS, REV+FLANGER, REV+VIBATO combinations
Presets	256
Controls	16-position PRESET BANK Selector 16-position VARIATION selector CLIP LED MUTE SWITCH with LED indicator

Main Mix Section

Noise (Bus noise)

Fader 0 dB, channels muted:-100.0dBr (ref.:+4dBu)

Fader 0 dB, all input channels assigned
and set to UNITY gain:-90dBr(ref.:+4dBu)

Max output

+22dBu balanced XLR,
+22dBu unbalanced, 1/4" jacks

AUX Return gain range

- to +15dB

AUX Sends max out

+22dBu

Power supply

Main voltage

USA/Canada 100-120V~, 60Hz

Europe 210-240V~, 50Hz

U.K./Australia 240V~, 50Hz

Power Consumption

60watts

Fuse

100-120V~ : T630mAL

210-240V~ : T400mAL

Main connection

Standard IEC receptacle

Physical

Dimension (W*D*H)

363mmX400mmX38/115mm(14.29"X15.74"X1.50"/4.53")

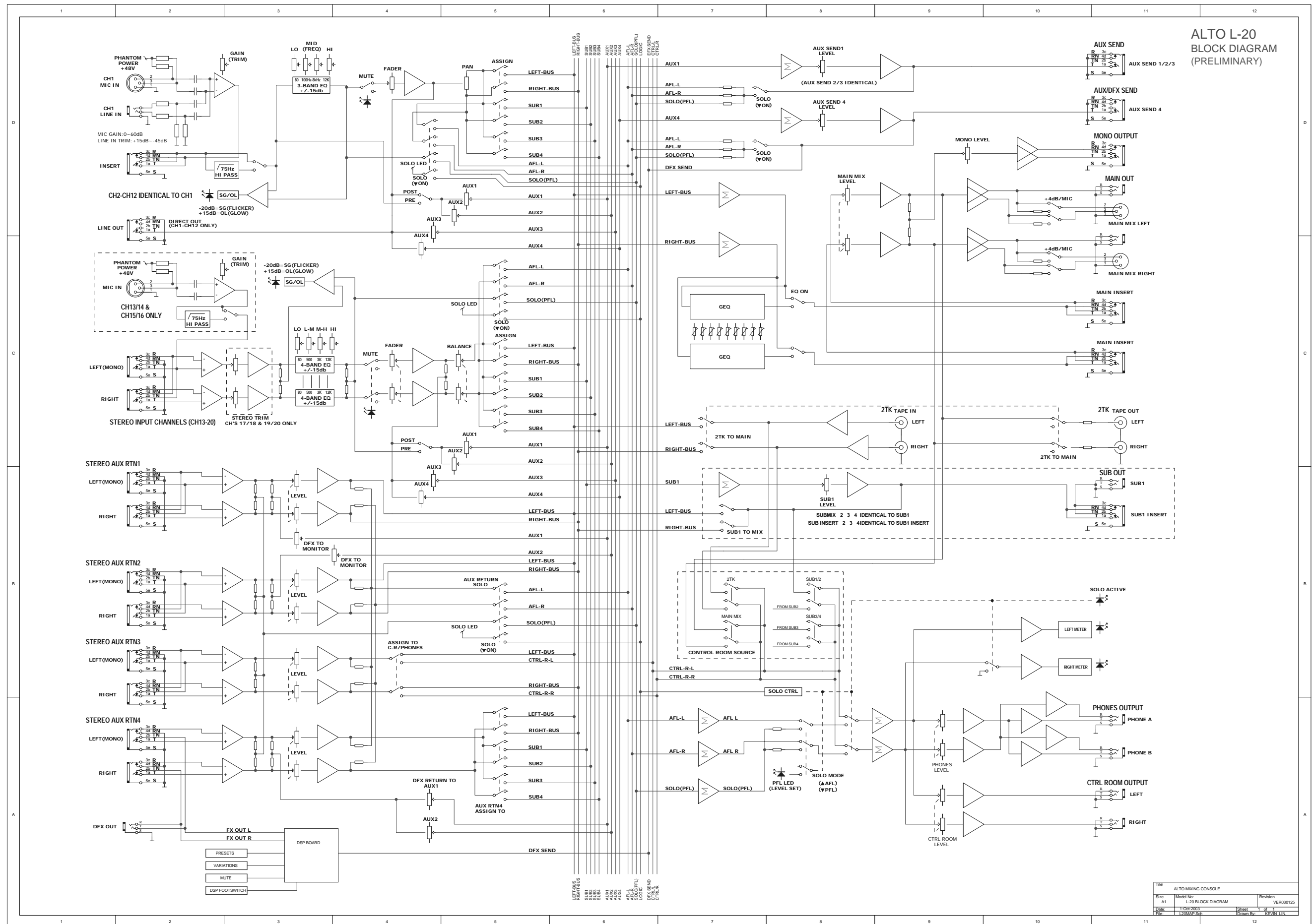
Net weight

3.0Kg (6.62lb)

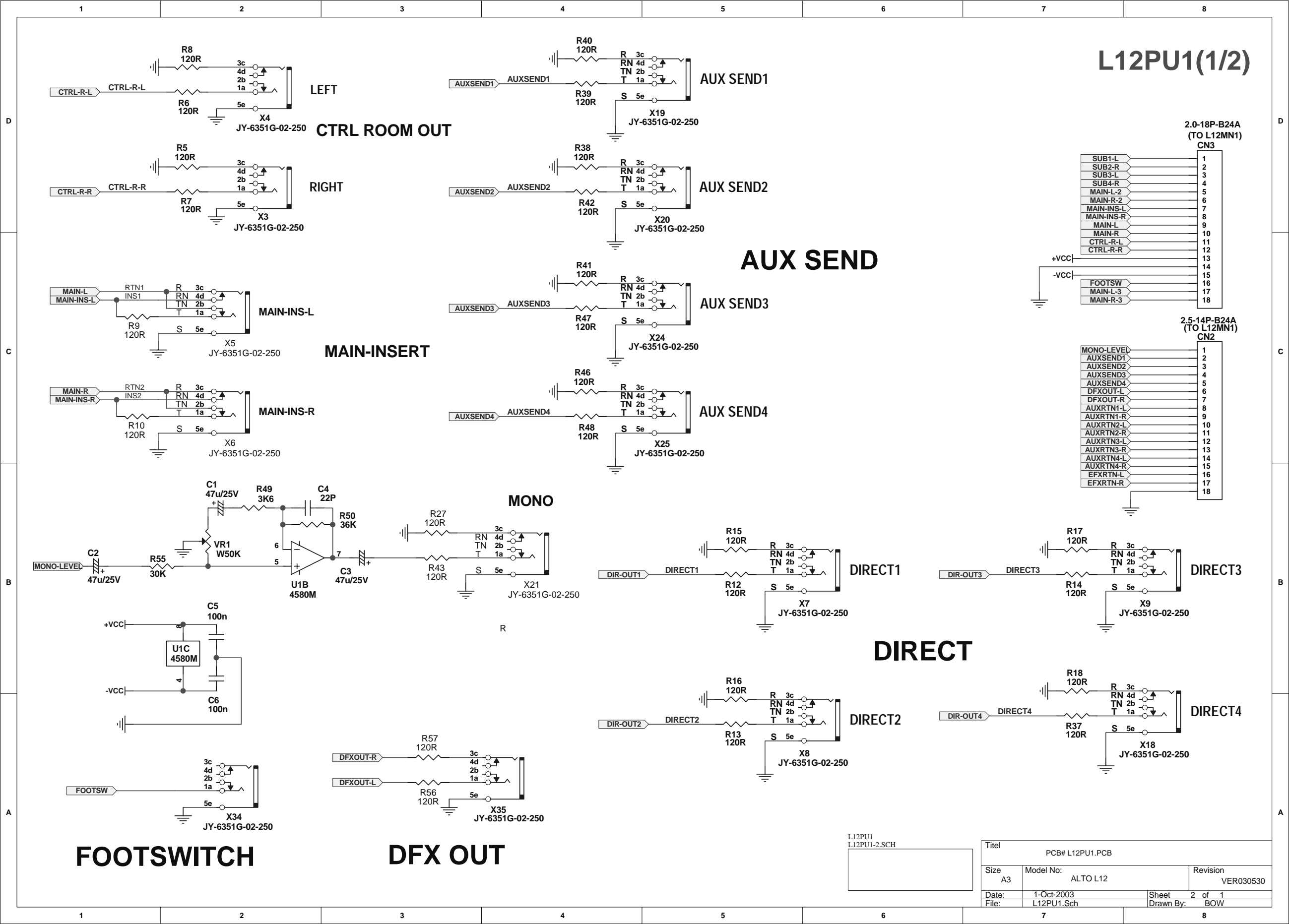
Shipping weight

4.1Kg (9.04lb)

2. Block Diagram



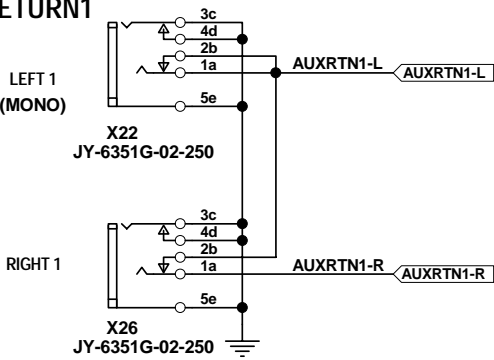
3. Schematic Diagram



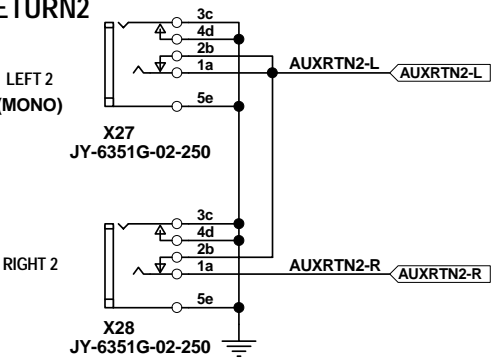
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Size	Model No:	Revision
A3	ALTO L12	VER030530
Date:	1-Oct-2003	Sheet 2 of 1
File:	L12PU1.Sch	Drawn By: BOW

L12PU1-2(2/2)

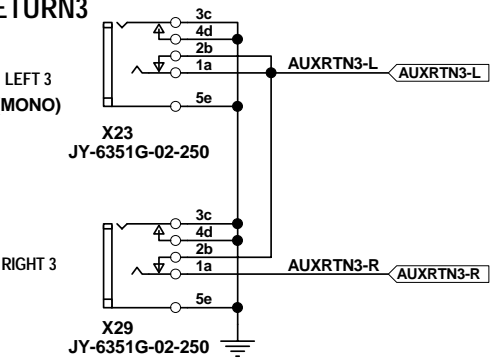
STEREO AUX RETURN1



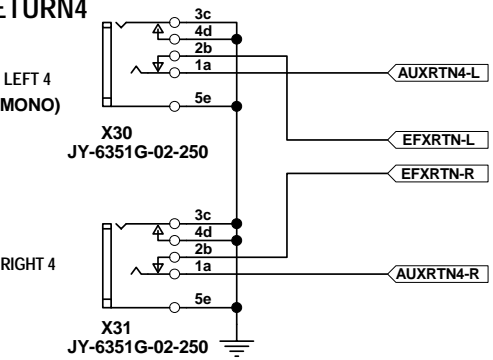
STEREO AUX RETURN2



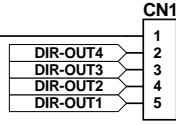
STEREO AUX RETURN3



STEREO AUX RETURN4



2.5-14P-B24A
(TO L12PU2)



MAIN R (UNBAL)

MAIN L (UNBAL)

MAIN OUT
(BALANCED)

RIGHT

LEFT

INSERT-SUB1

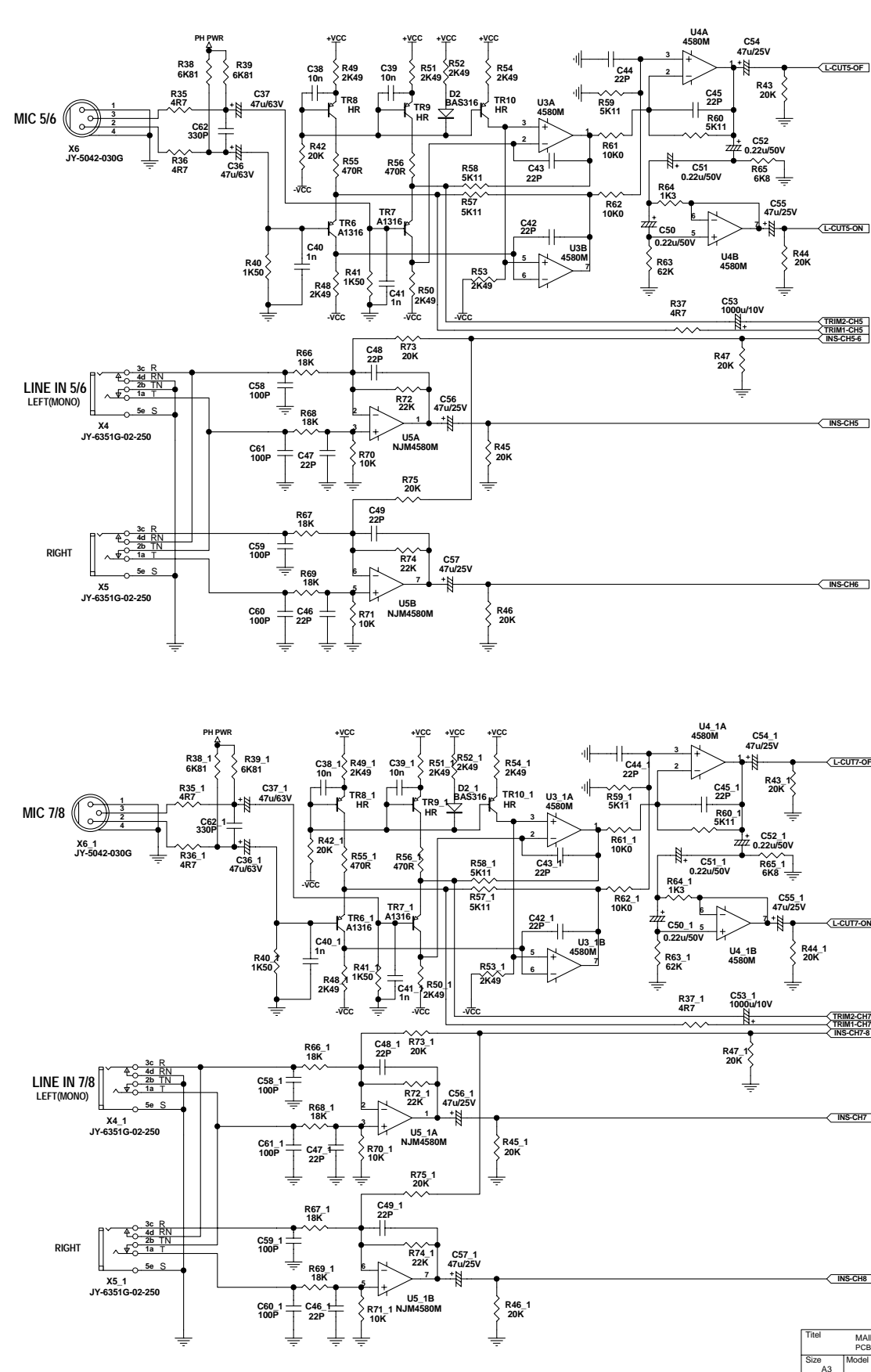
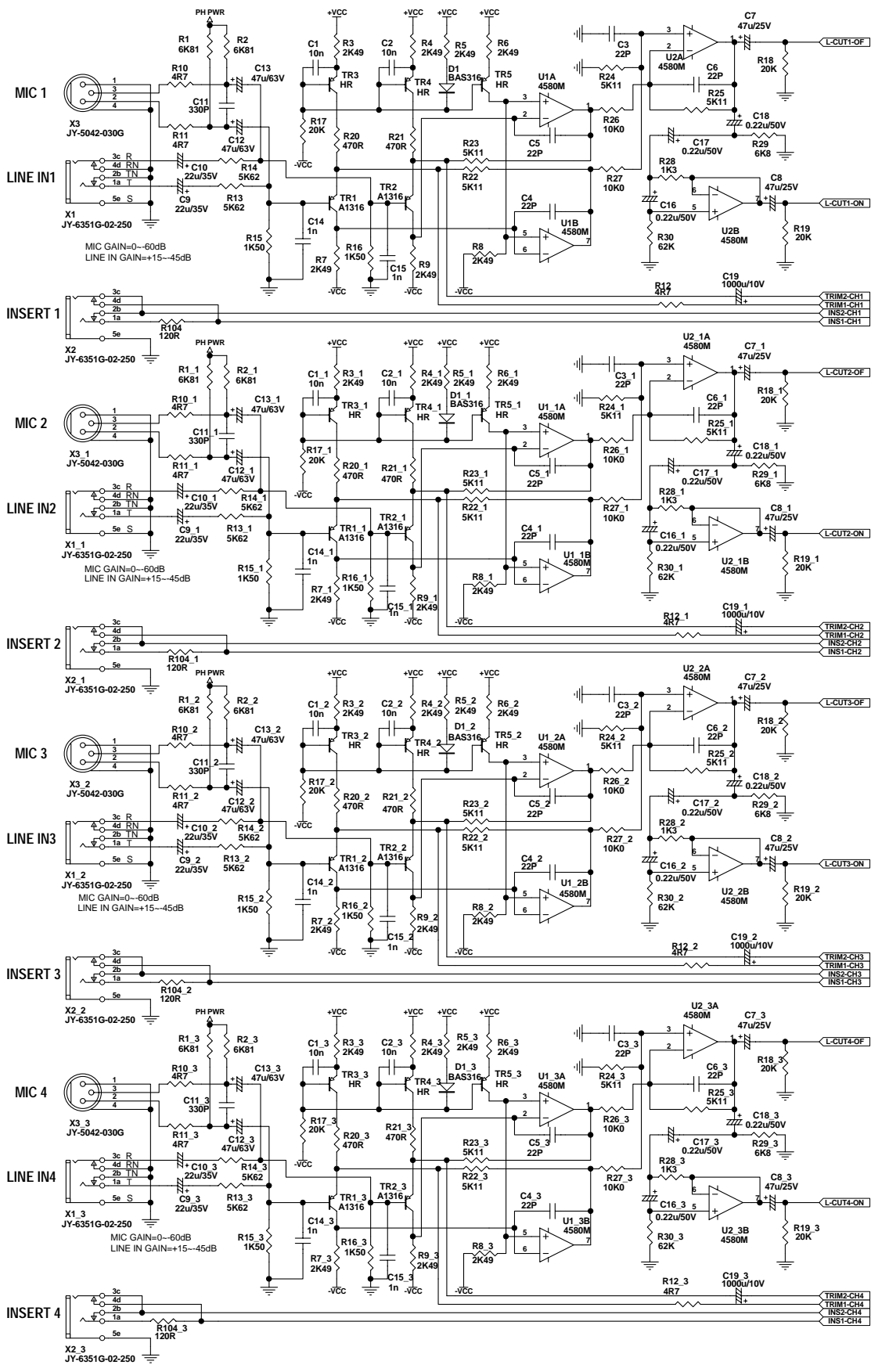
INSERT-SUB2

INSERT-SUB3

INSERT-SUB4

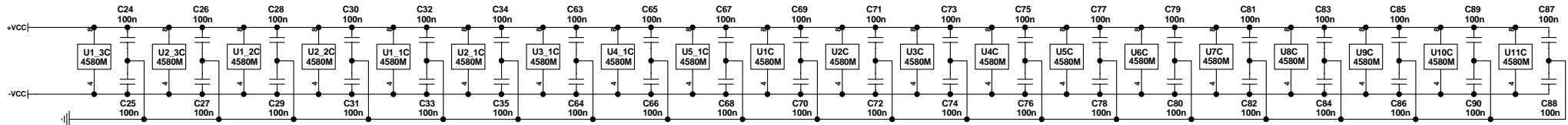
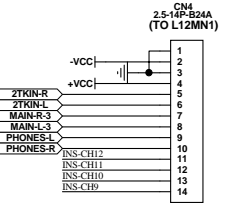
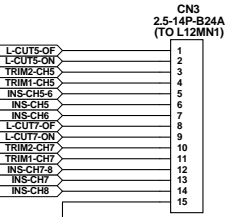
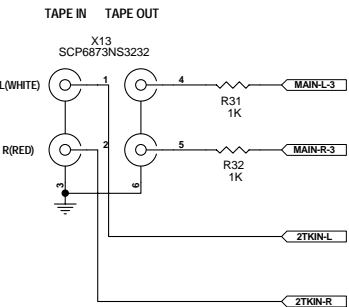
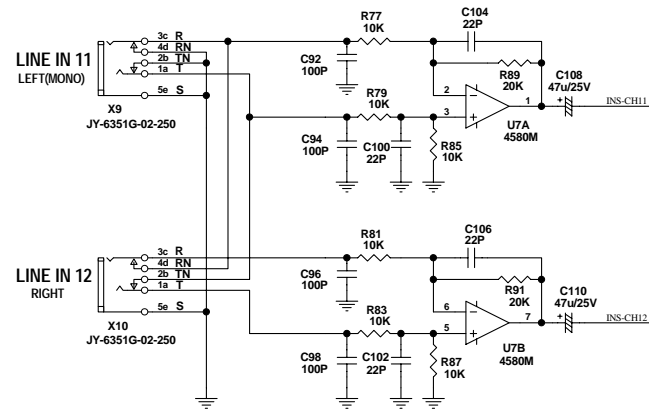
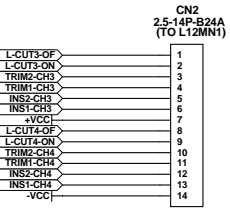
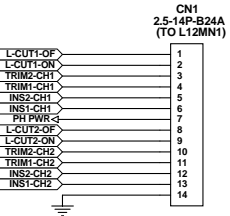
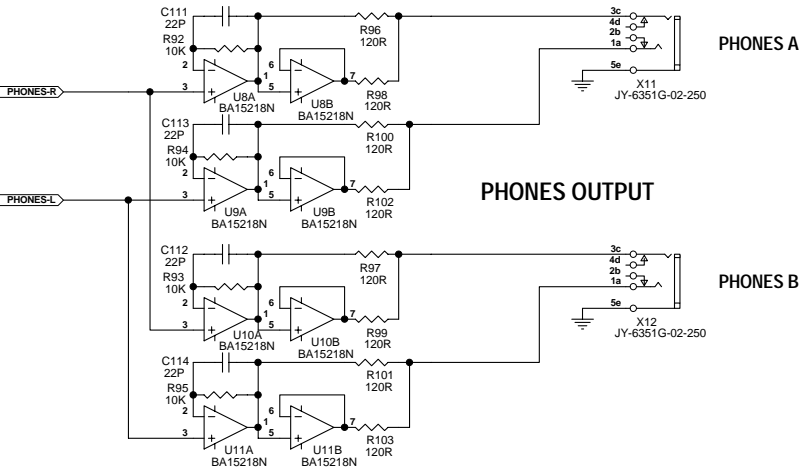
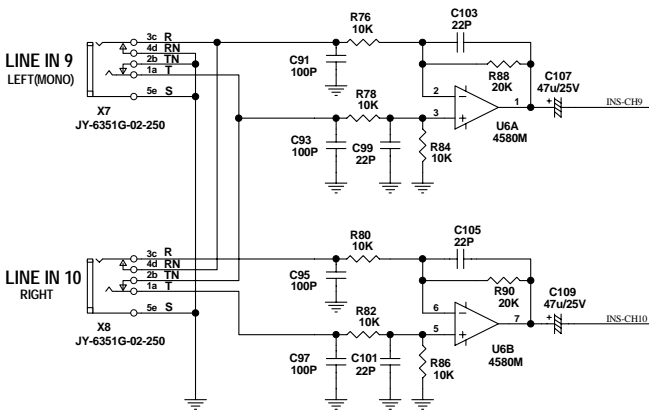
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Size	A3	Model No:	ALTO L12
		Revision	VER030530
Date:	11-Jun-2003	Sheet	2 of 2
File:	L12PU1-2.Sch	Drawn By:	BOW

L12PU2



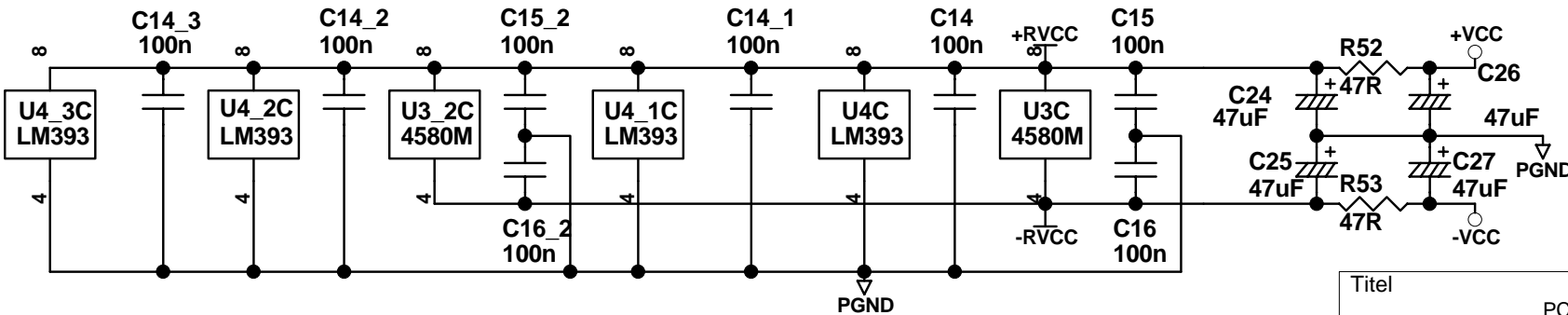
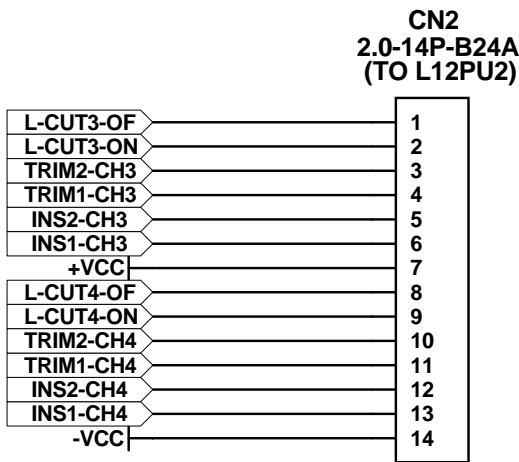
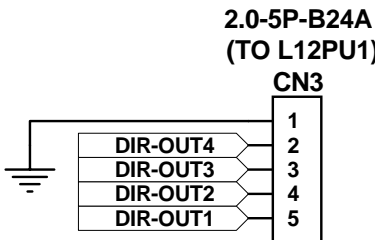
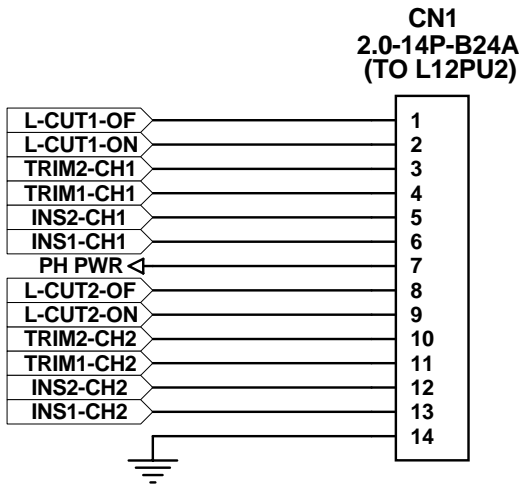
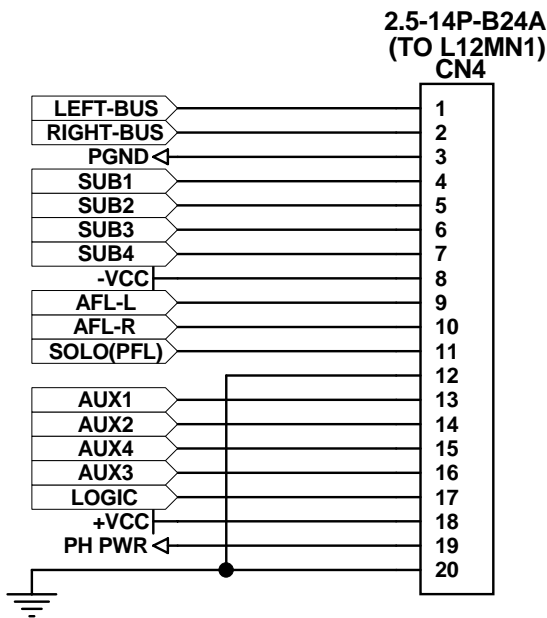
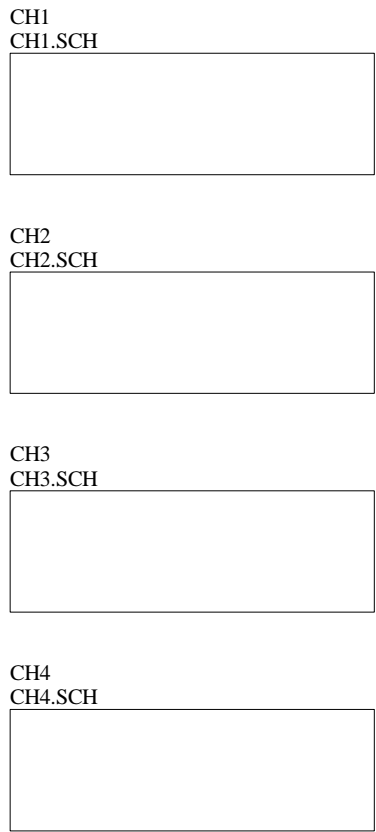
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Date:		11-Jun-2003	
File:		L12PU2.Sch	
Model No:		ALTO L12	
Revision		VER030530	
Sheet		1 of 2	
Drawn By:		BOW	

L12PU2-2



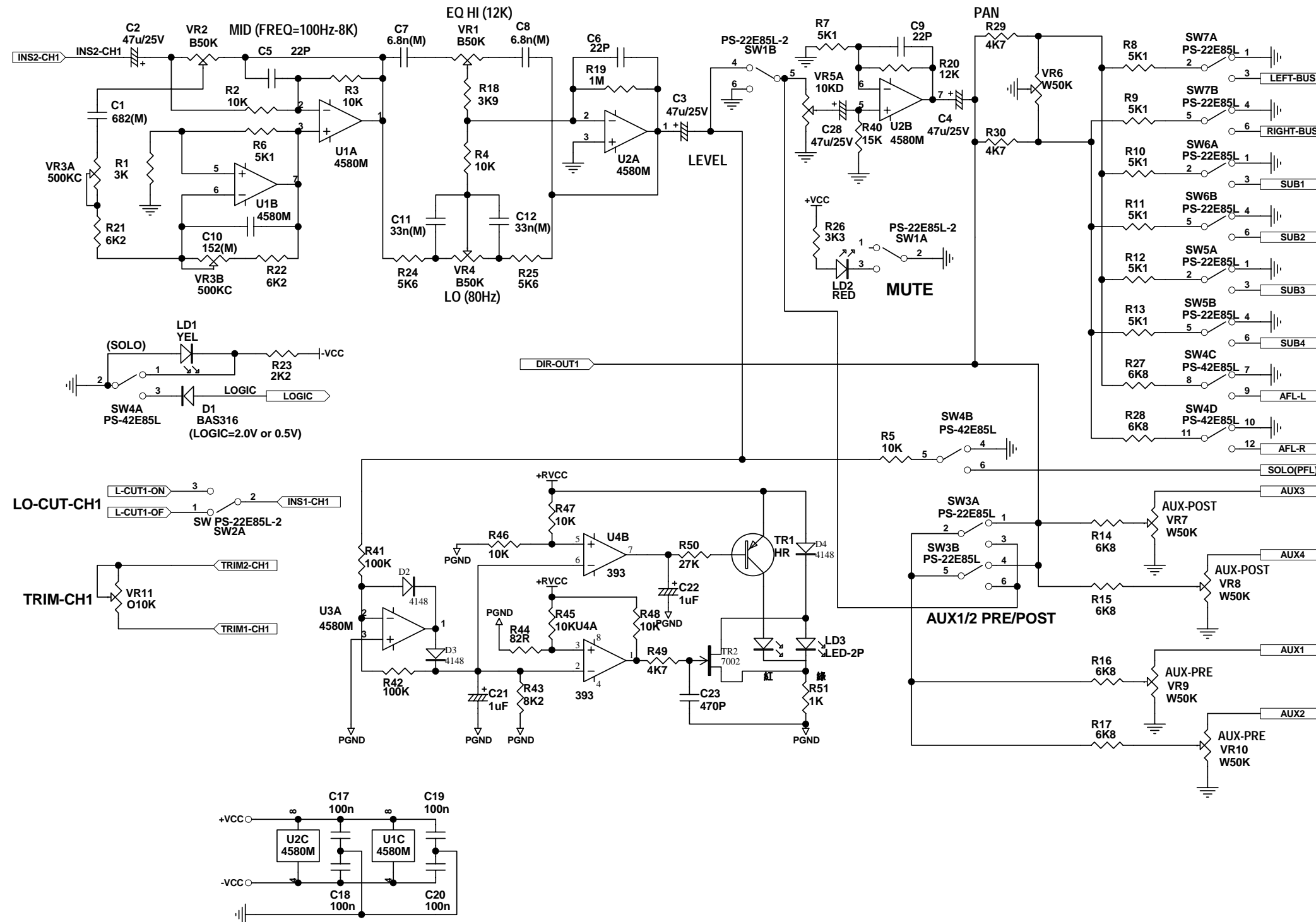
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File:	L12PU2-2.Sch	Drawn By:	BOW

L12MN2(1/5)



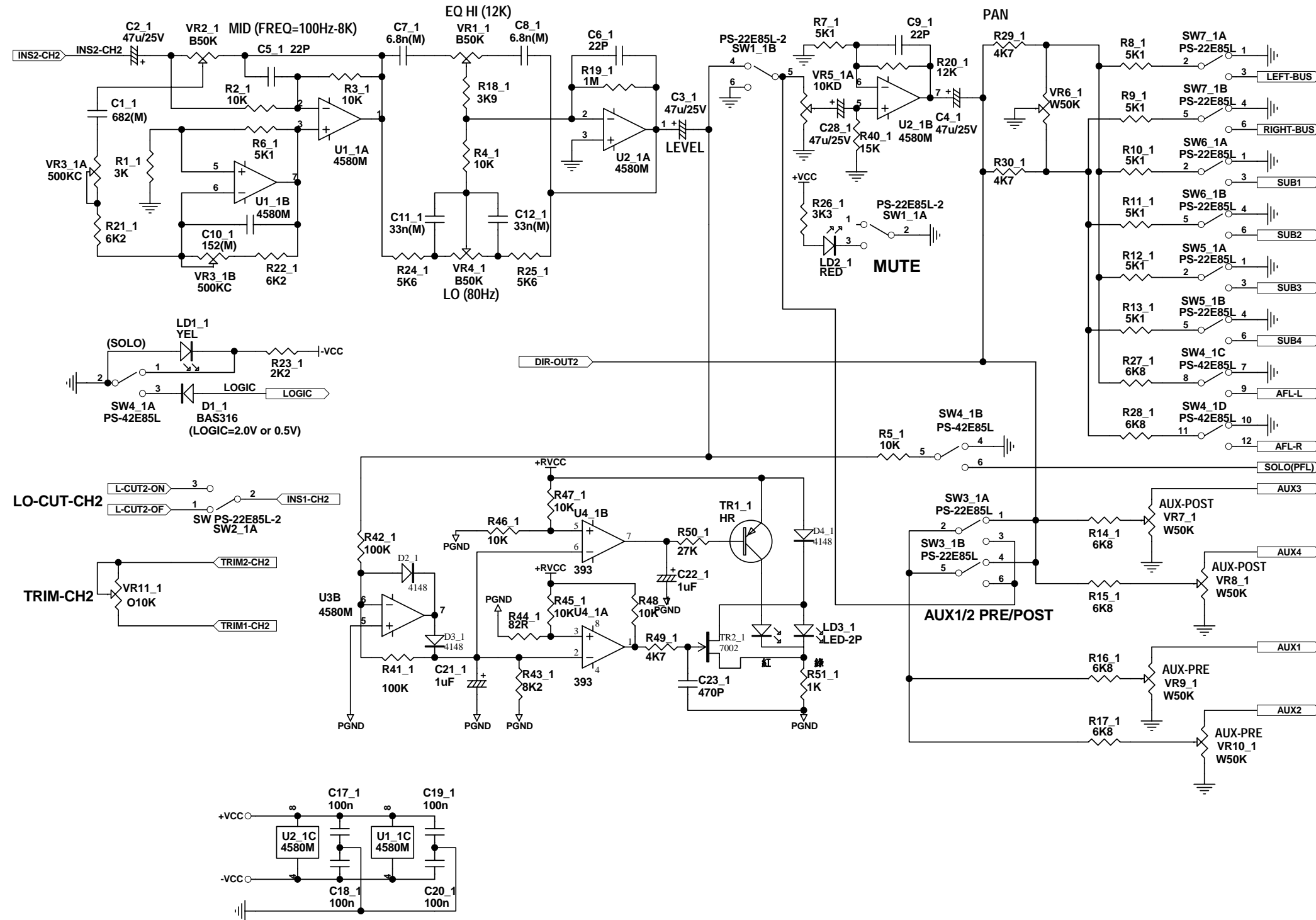
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Date:	11-Jun-2003	Sheet	1 of 5	VER030530
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L12MN2-CH1(2/5)



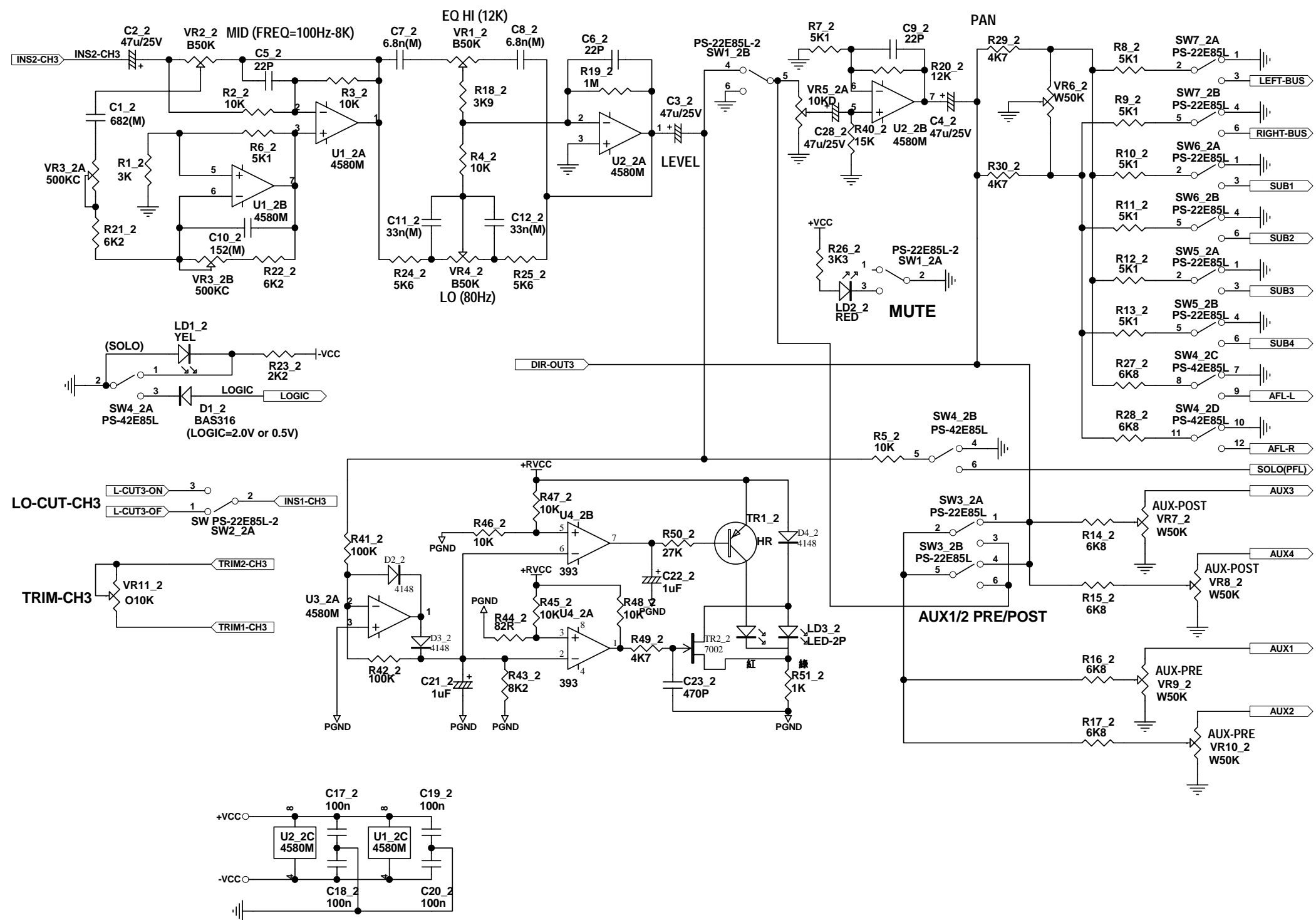
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Size A3	Model No: ALTO L12	Revision VER030712
Date: 12-Jul-2003	Sheet 2 of 5	
File: CH1.Sch	Drawn By: BOW	

L12MN2CH2(3/5)



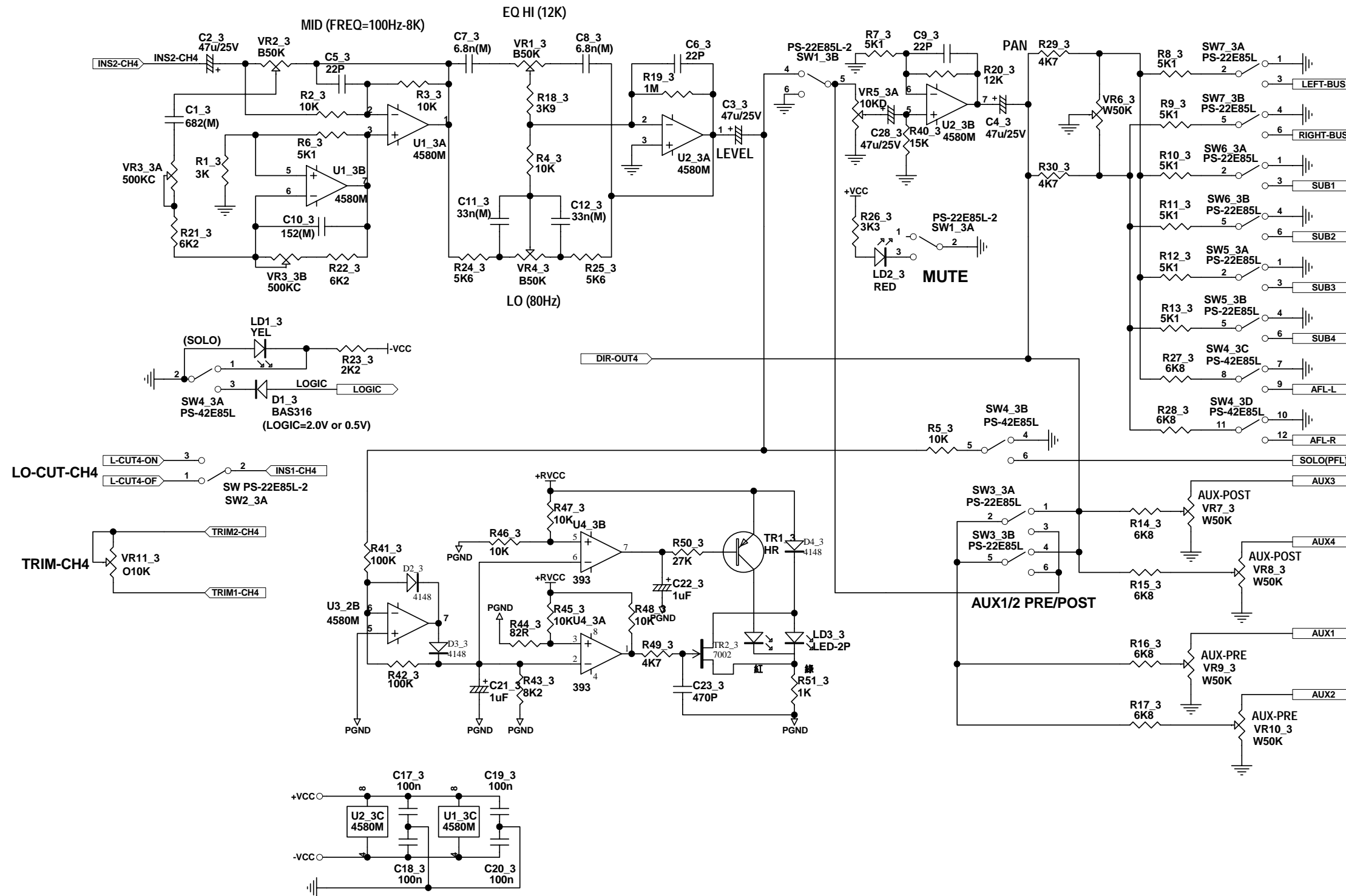
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Size	Model No:	Revision	
A3	ALTO L12	VER030712	
Date:	12-Jul-2003	Sheet	3 of 5
File:	CH2.Sch	Drawn By:	BOW

L12MN2CH3(4/5)



Titel			
PCB# L12MN2.PCB			
Size	Model No:	Revision	
A3	ALTO L12	VER030712	
Date:	12-Jul-2003	Sheet	4 of 5
File:	CH3.Sch	Drawn By:	BOW

L12MN2CH4(5/5)



Titel			
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Size	Model No:	Revision	
A3	ALTO L12	VER030712	
Date:	12-Jul-2003	Sheet	5 of 5
File:	CH4.Sch	Drawn By:	BOW

L12MN1

L12STEREO
L12STEREO.SCH

L12STEREO2
L12STEREO2.SCH

OTHER
OTHER.SCH

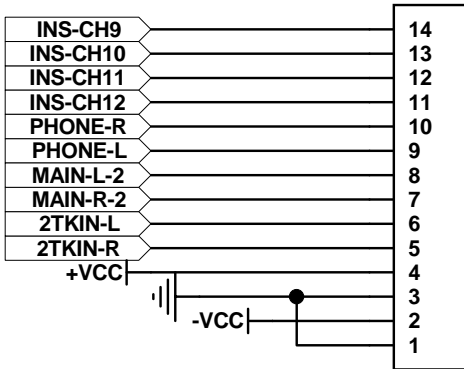
AUXRTN
AUXRTN.SCH

AUXSEND
AUXSEND.SCH

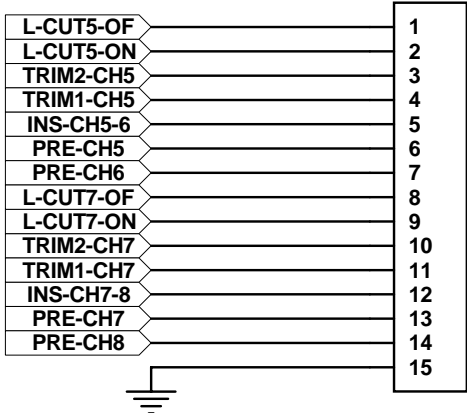
CTRMETER
CTRMETER.SCH

L12DSP
L12DSP.SCH

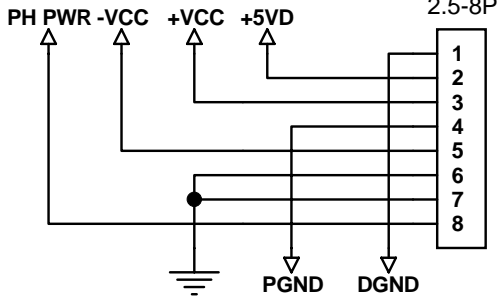
CN4
2.0-14P-B24A
(TO L12PU2-CH9-12)



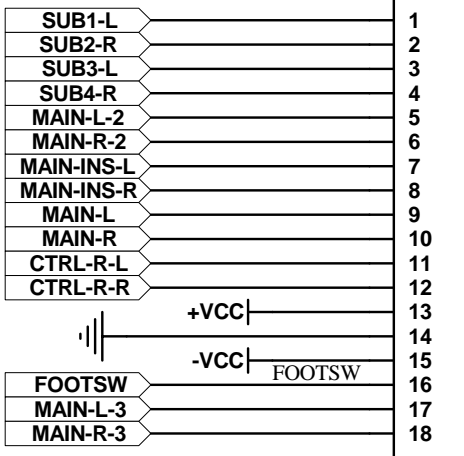
CN5
2.0-15P-B24A
(TO L12PU2-CH5-8)



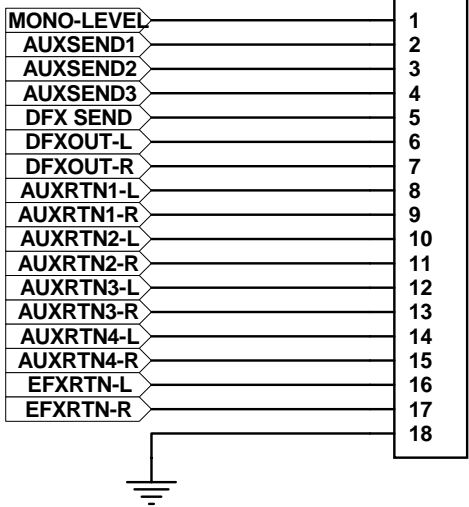
CN1
2.5-8P



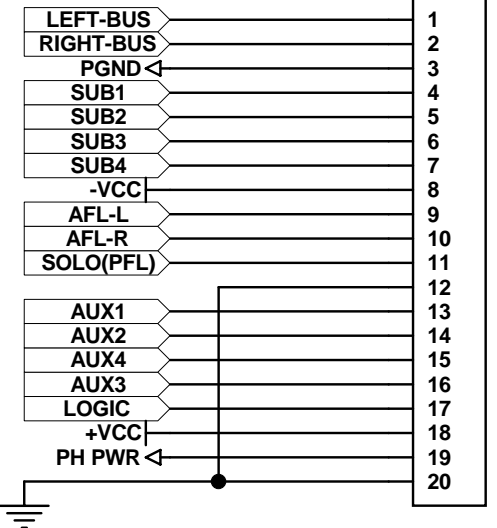
CN2
2.0-18P-B24A
(TO L12PU1)



CN3
2.0-18P-B24A
(TO L12PU1)

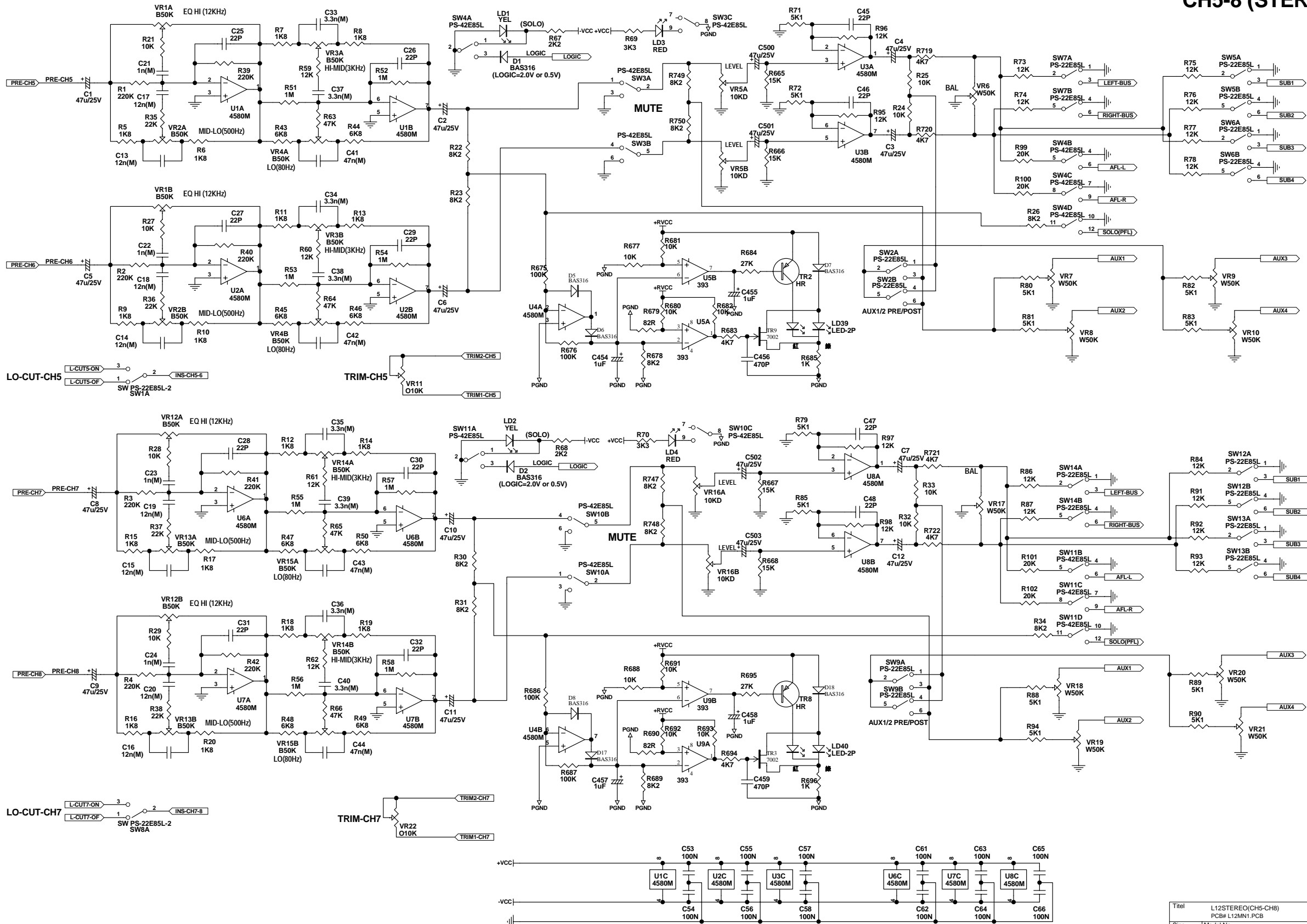


2.0-20P-B24A
(TO L12MN2)
CN7

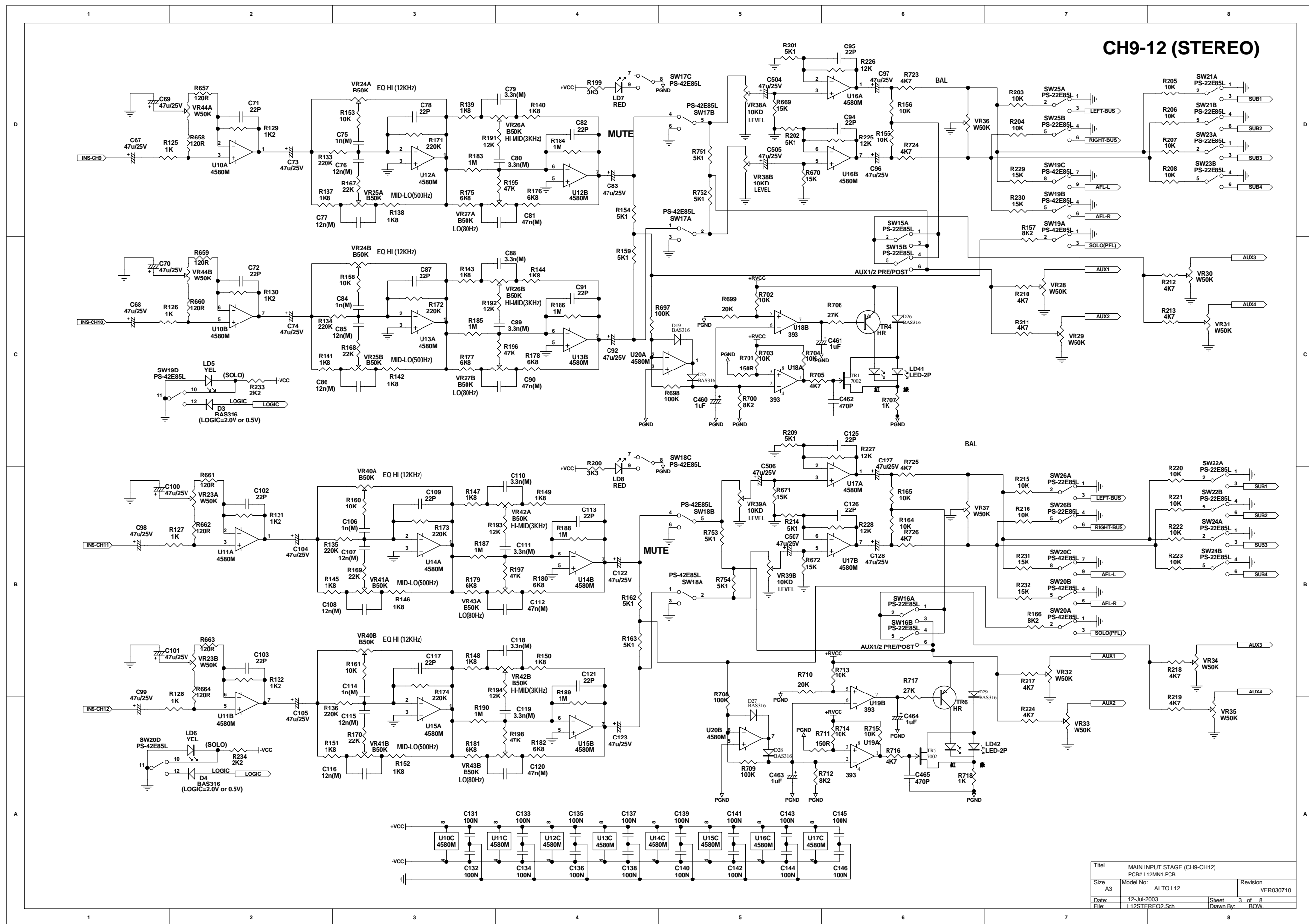


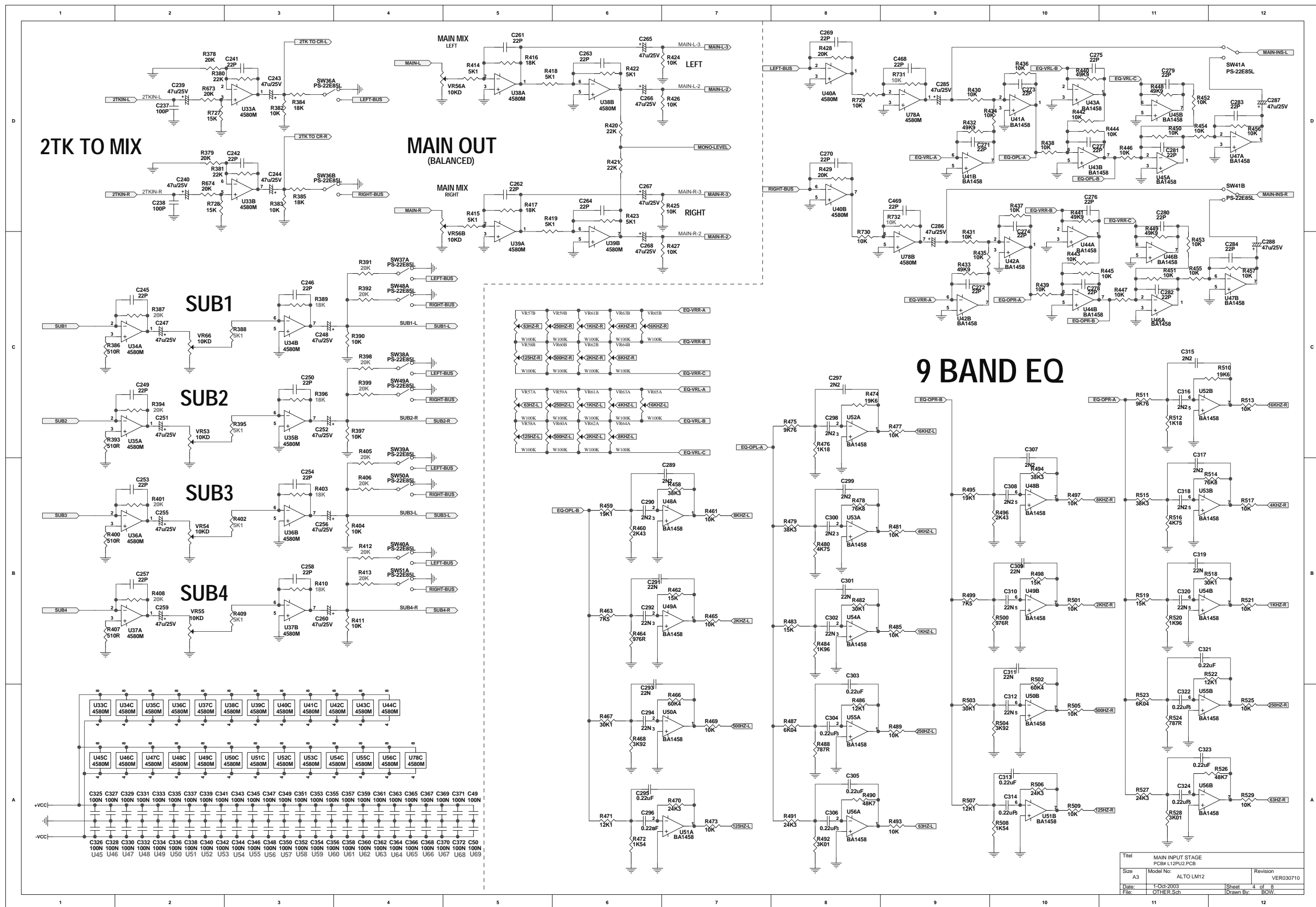
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Size	A4	Model No:	ALTO L12
Date:	18-Jun-2003	Sheet	1 of 8
File:	L12MN1.Sch	Drawn By:	BOW.

CH5-8 (STEREO)

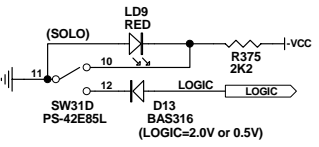


Title		L12STEREO(CH5-CH8)	
Size		PCB# L12MN1.PCB	
A3	Model No:	ALTO L12	Revision
Date:	12-Jul-2003	Sheet	2 of 8
File:	L12STEREO.Sch	Drawn By:	BOW

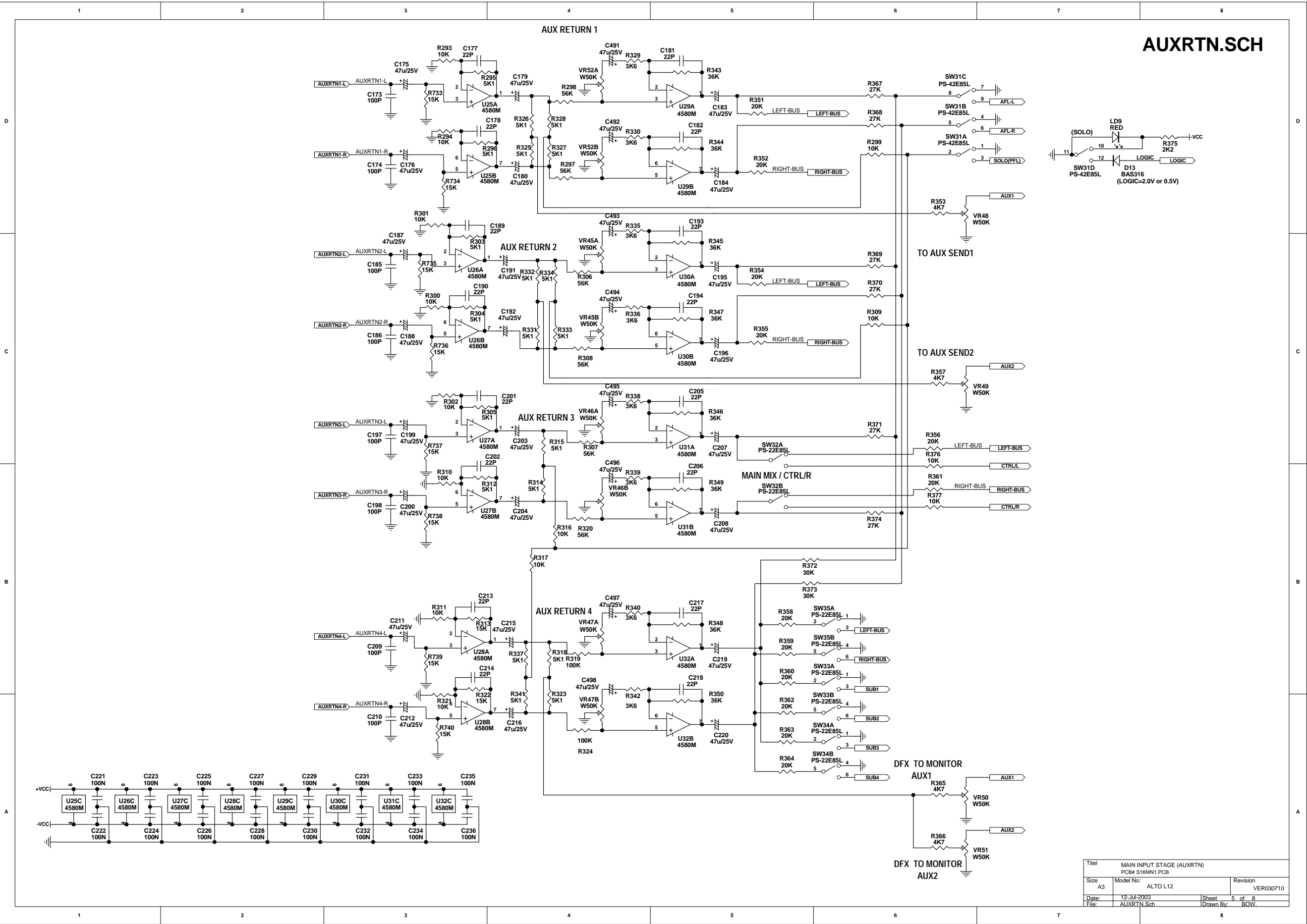




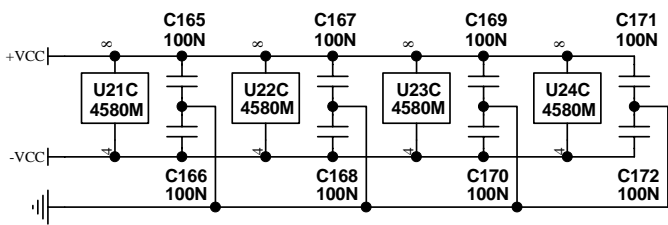
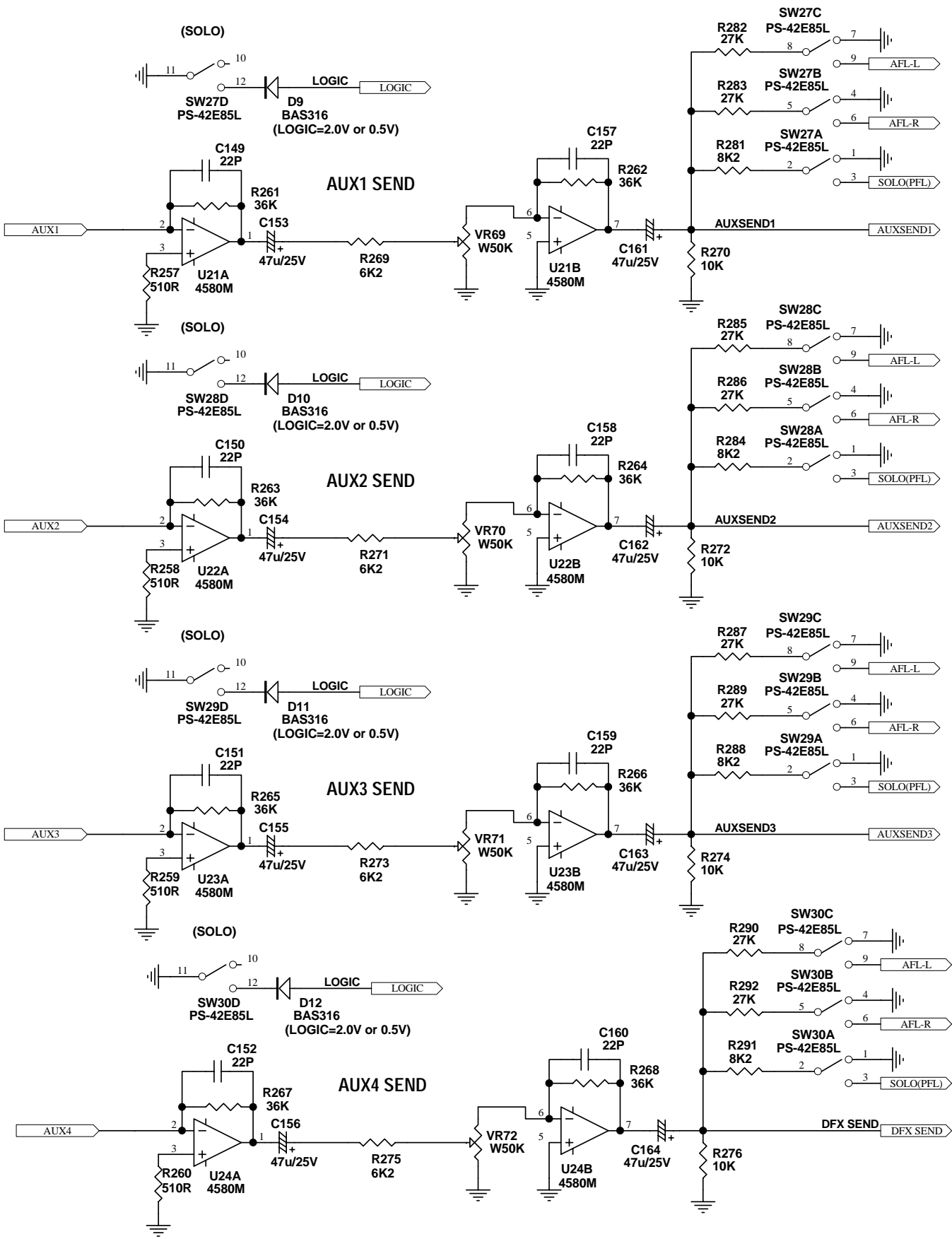
AUXRTN.SCH



Title			MAIN INPUT STAGE (AUXRTN)
Model No:			PCB# S16MN1.PCB
Size	A3	Revision	VER030710
Date:	12-Jul-2003	Sheet	5 of 8
File:	AUXRTN.Sch	Drawn By:	BOW

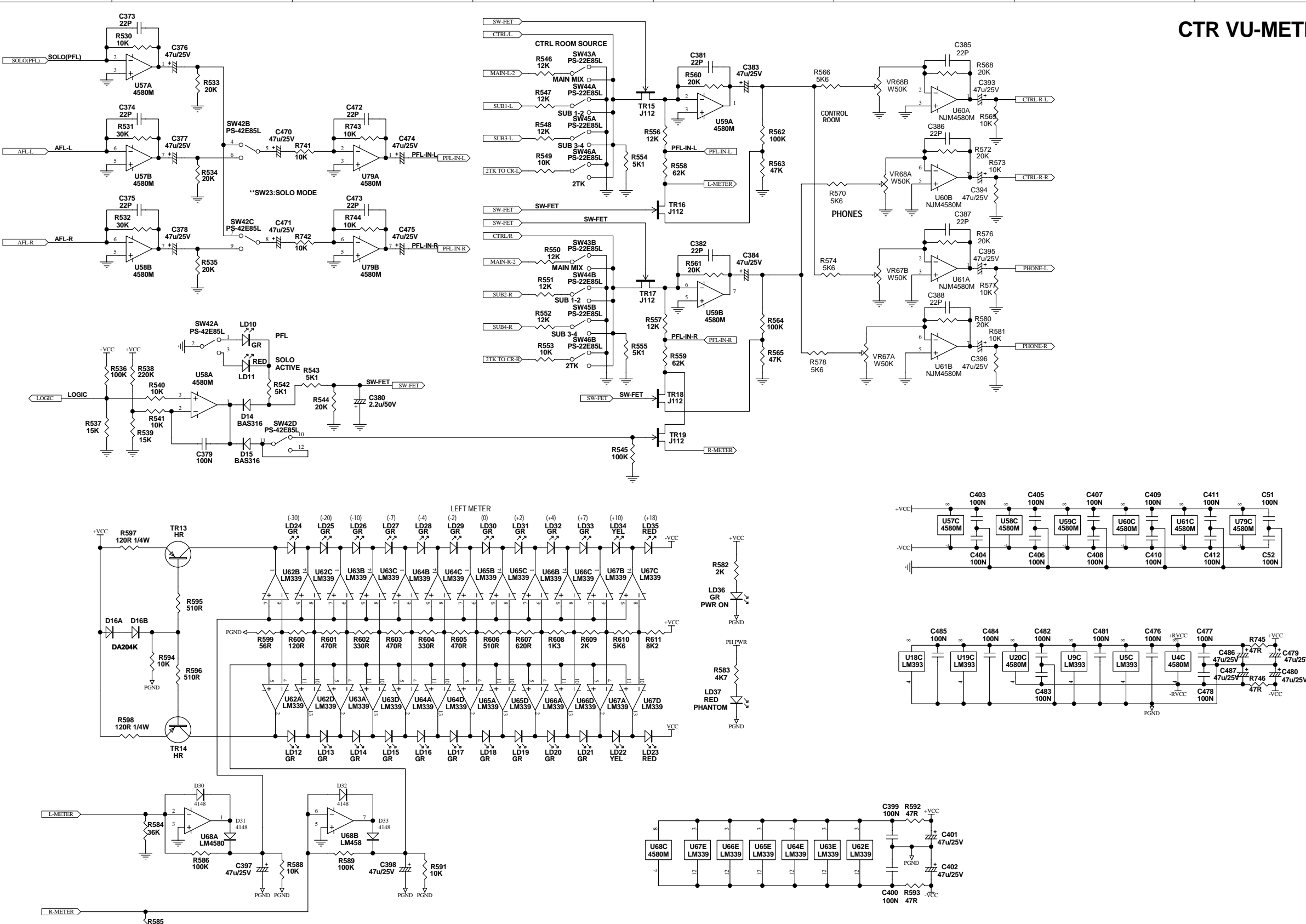


AUXSEND



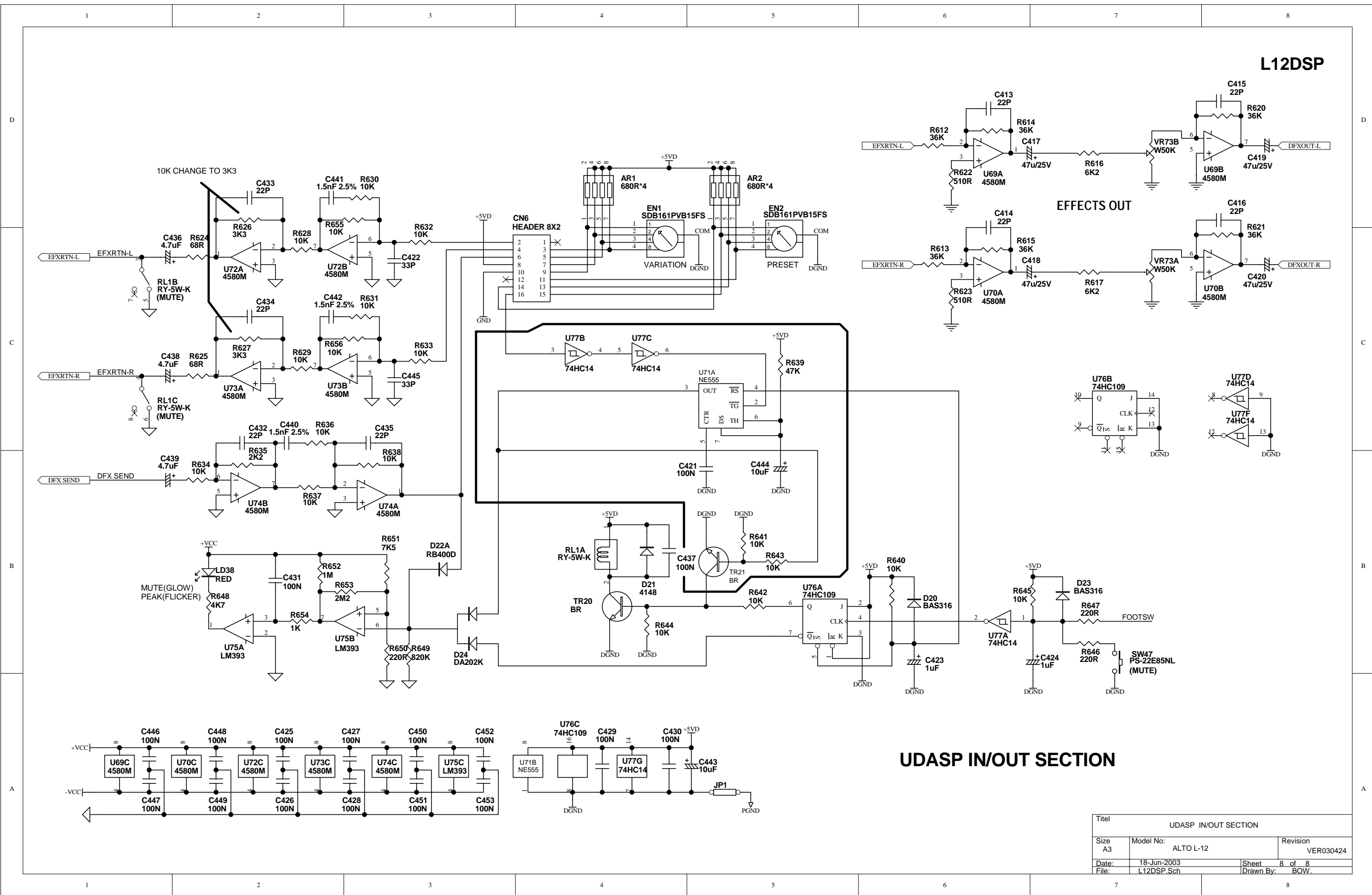
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Size		PCB# L12MN1.PCB	
A3		Model No:	ALTO L12
Date:		Revision	VER020530
18-Jun-2003		Sheet	6 of 8
File:		Drawn By:	BOW.
AUXSEND.SCH			

CTR VU-METER

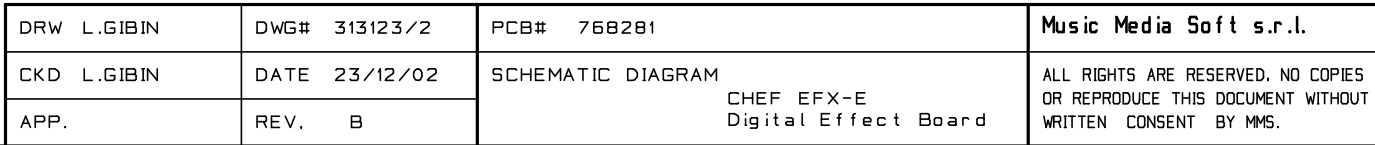


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CONTROL ROOM STAGE			
Size	Model No:	Revision	
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File:	CTRMETER.Sch	Drawn By:	BOW

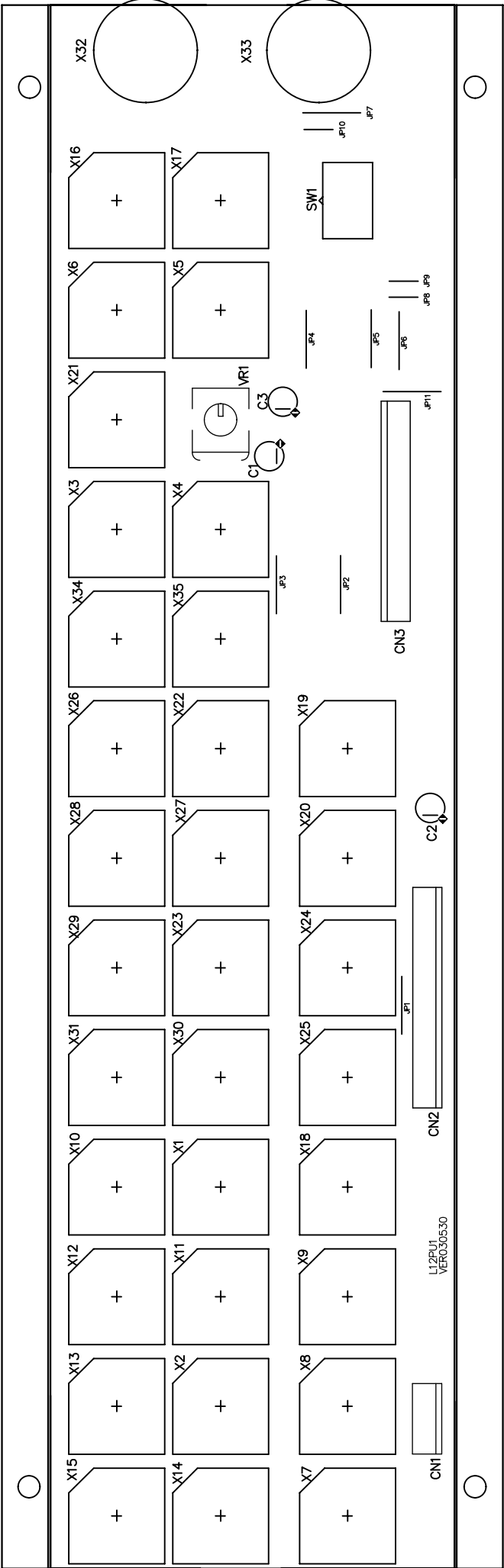
L12DSP

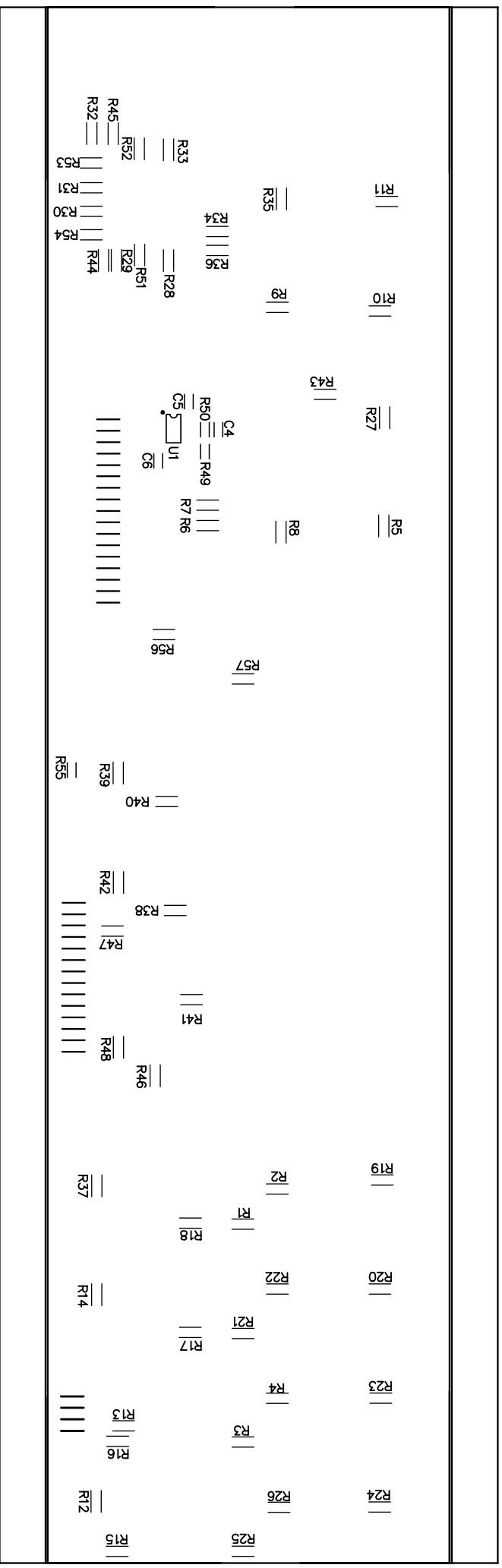


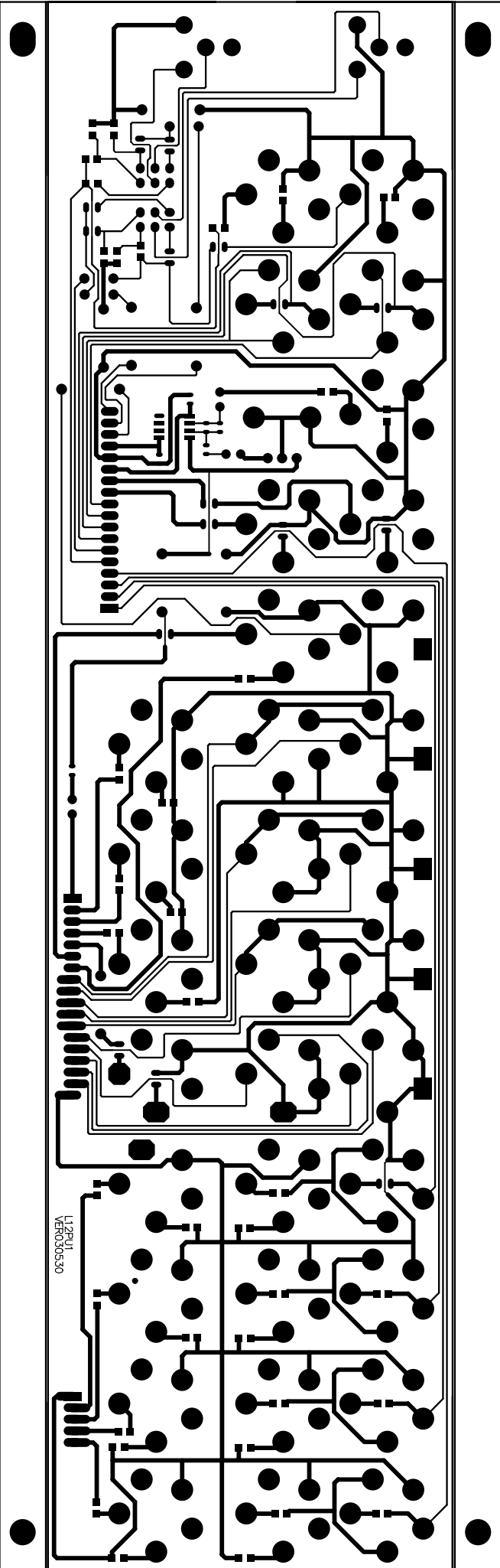
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UDASP IN/OUT SECTION			
Size	Model No:	Revision	
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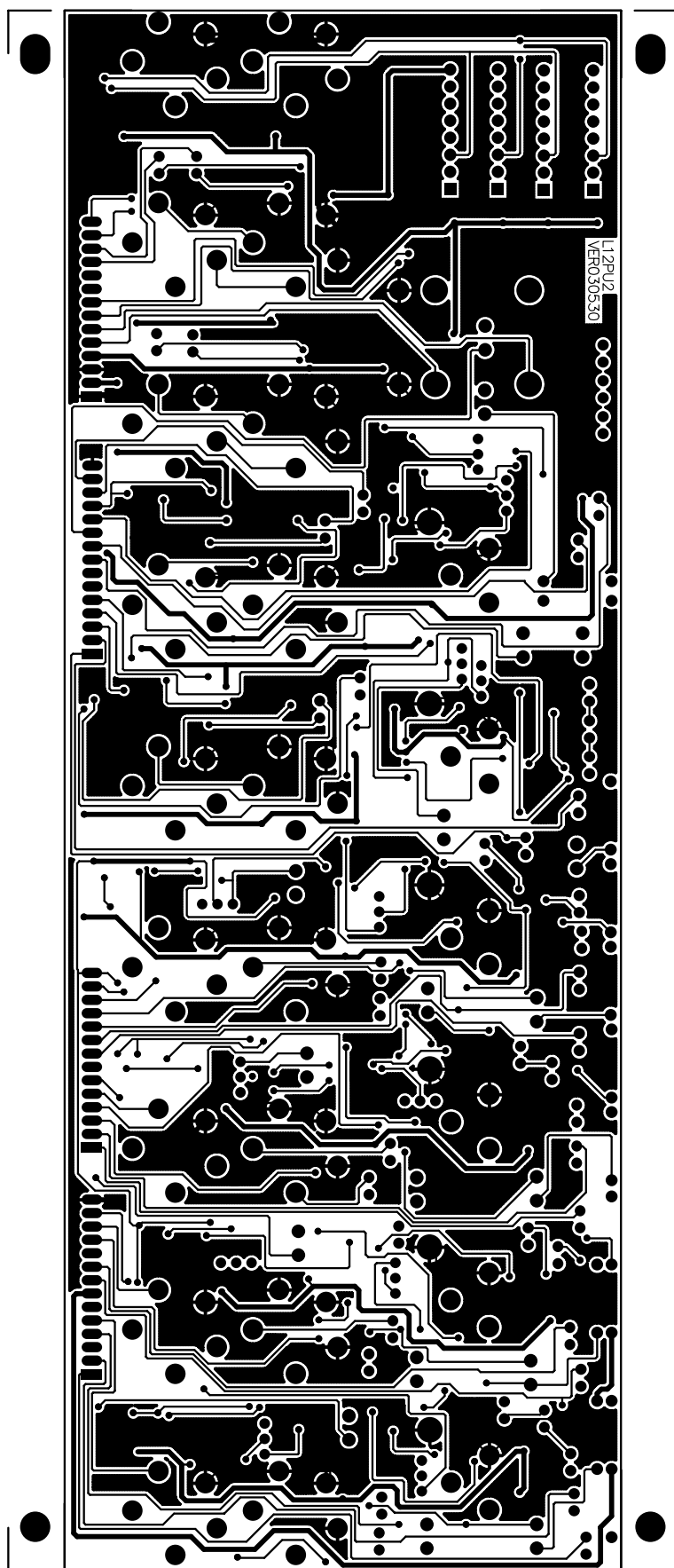


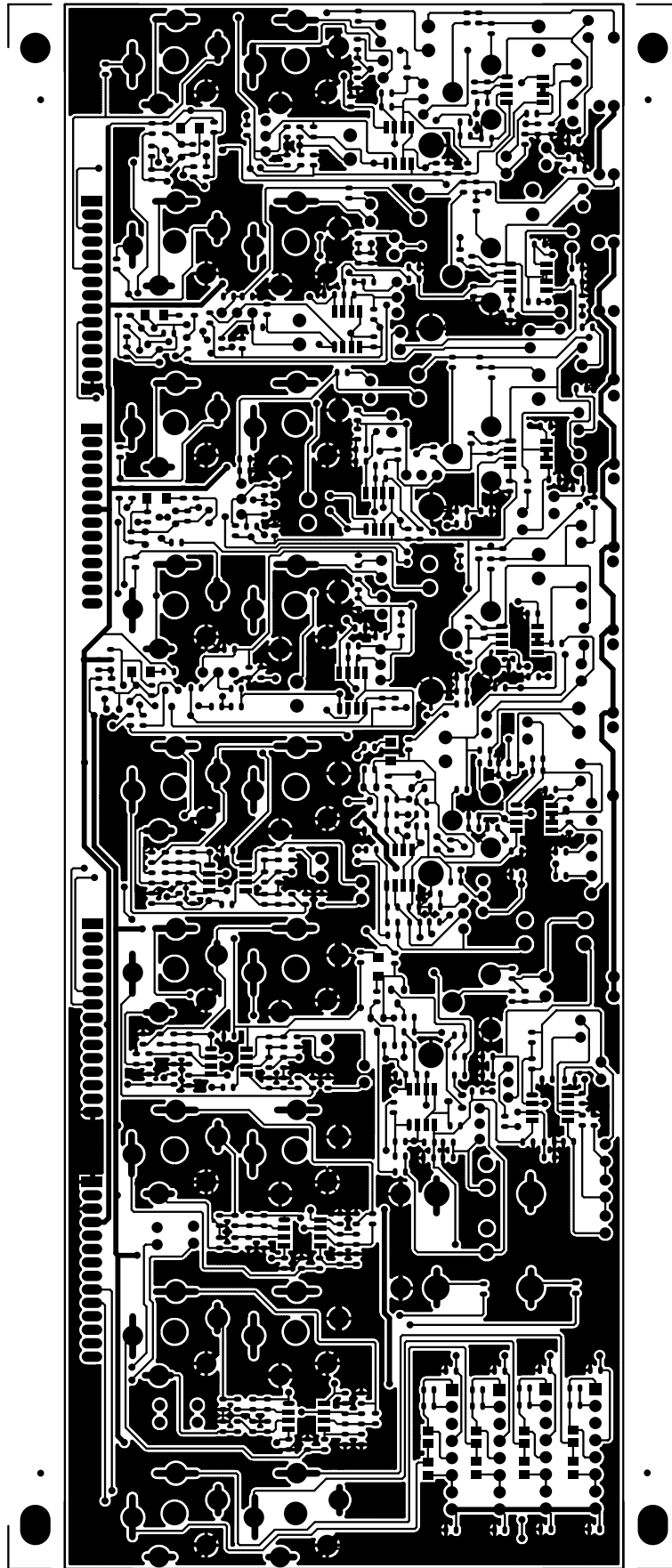
4. Printed Circuit Board

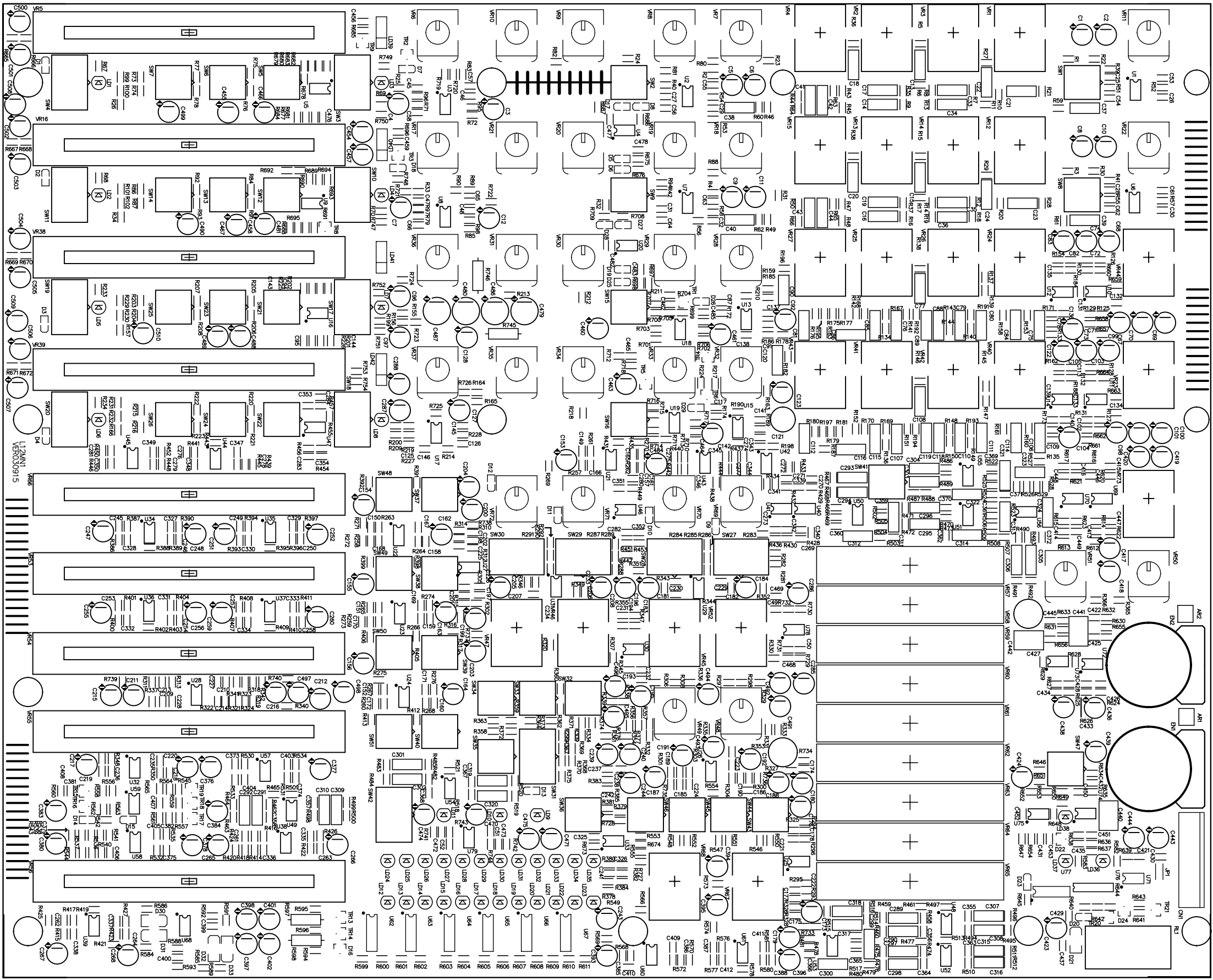


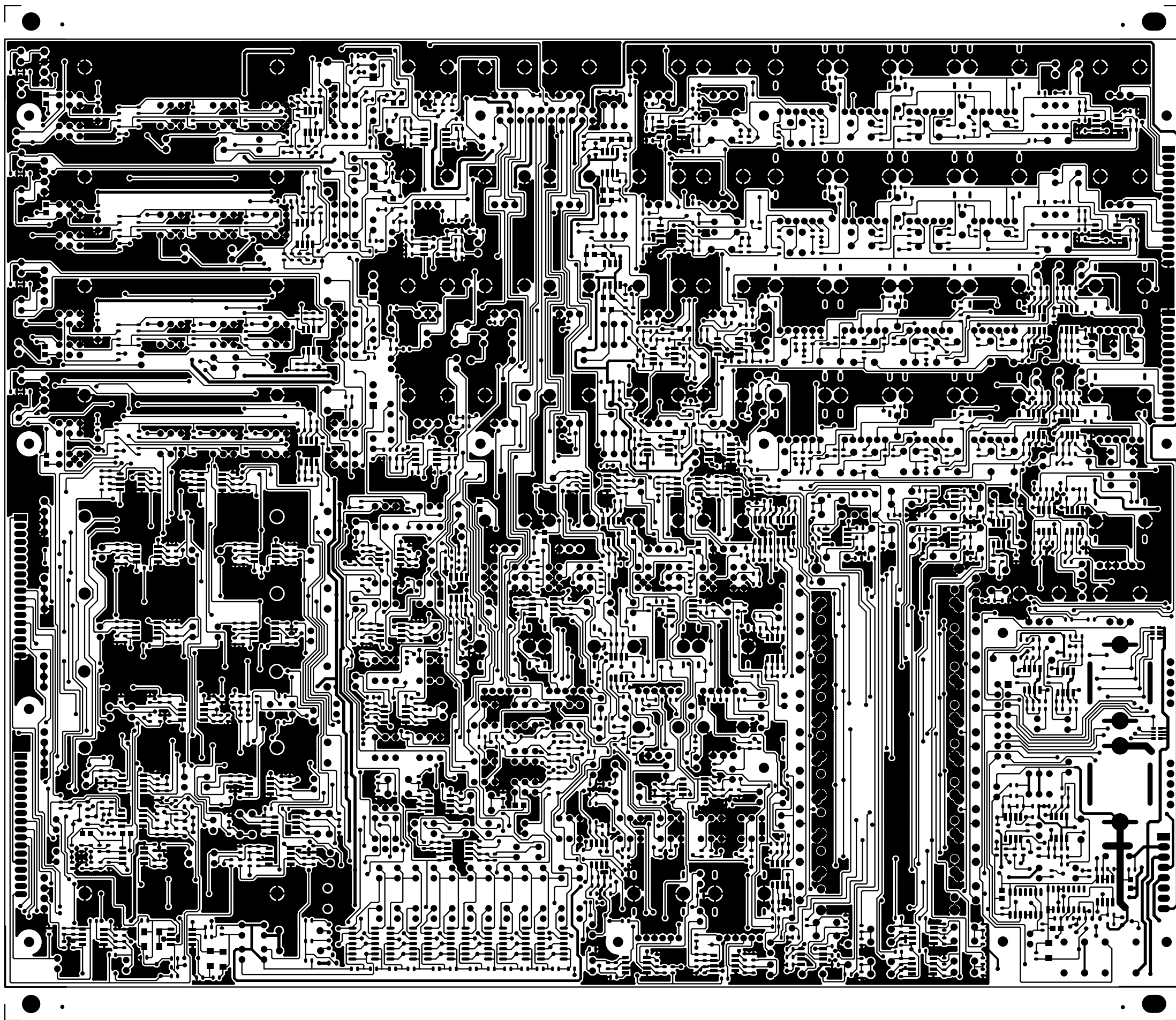


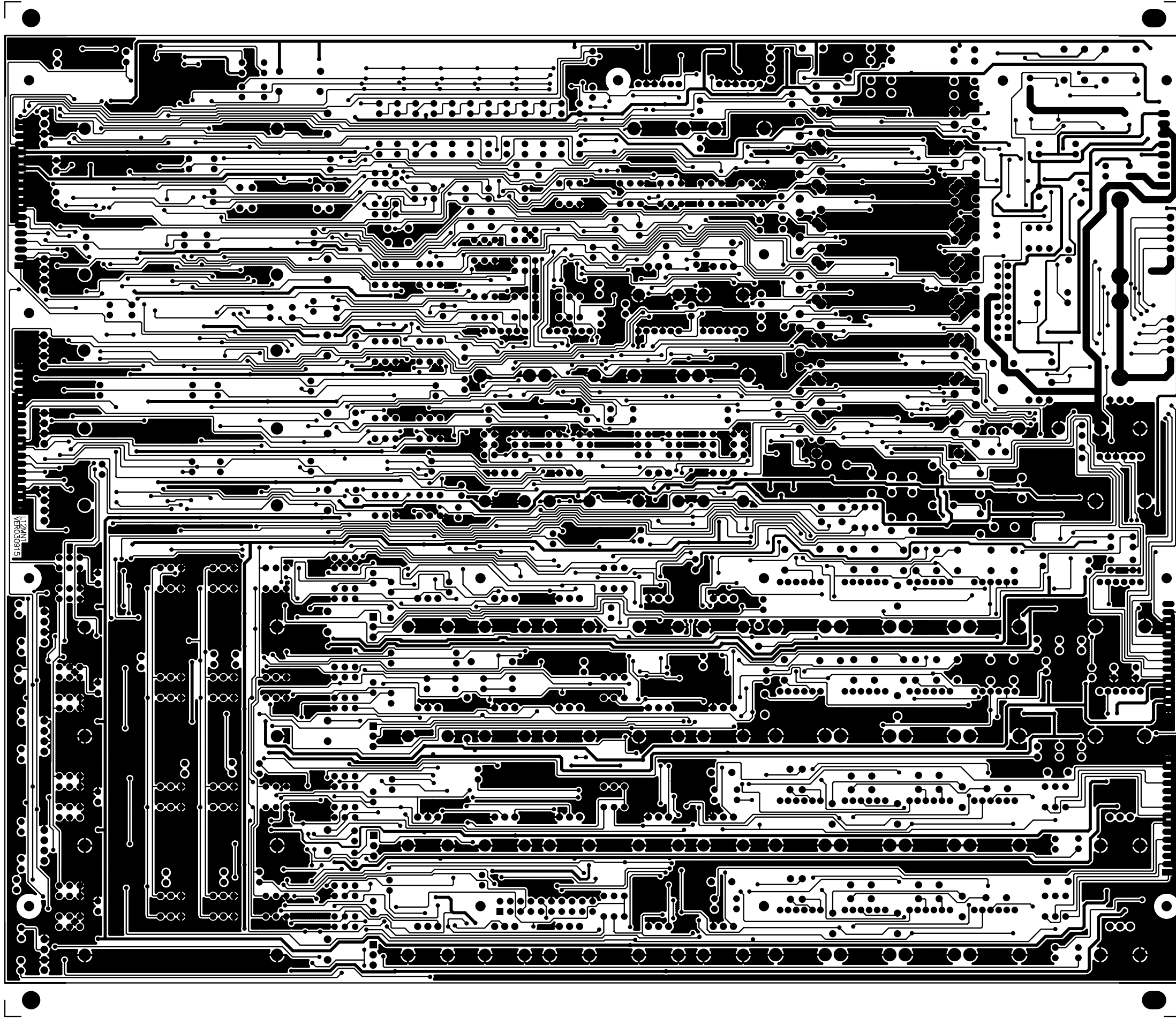


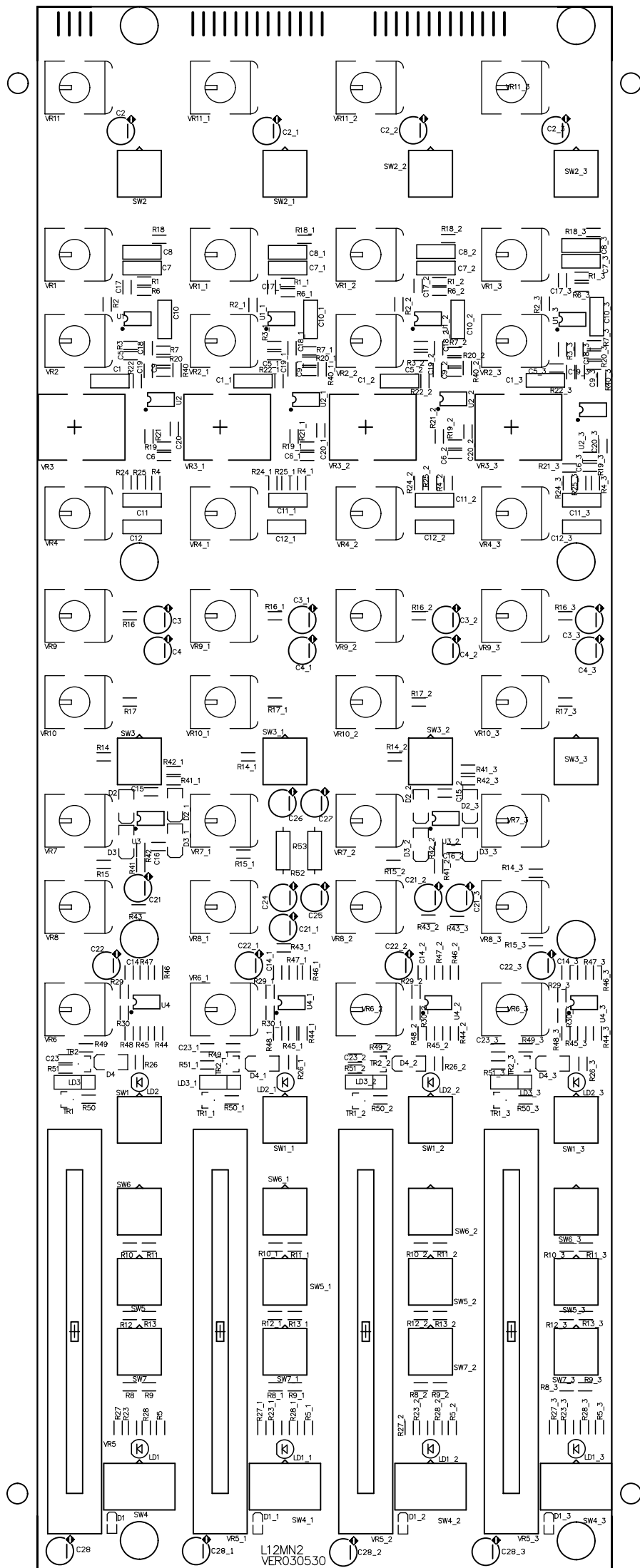


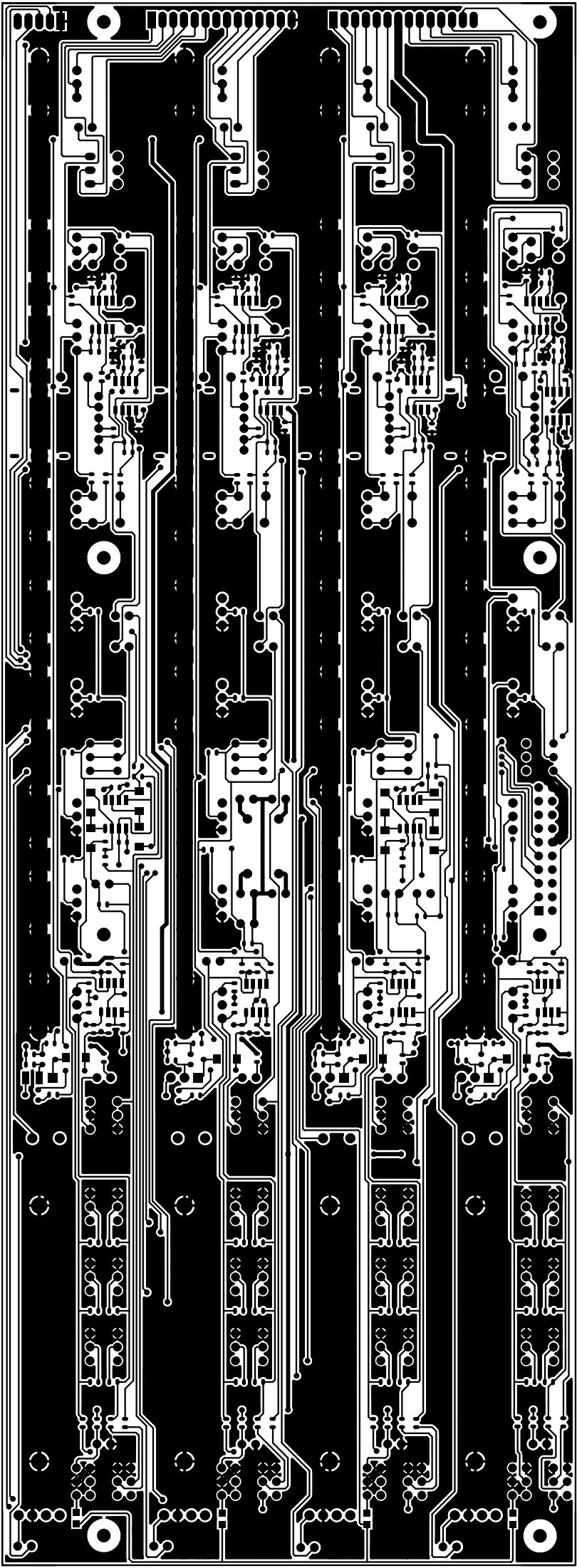


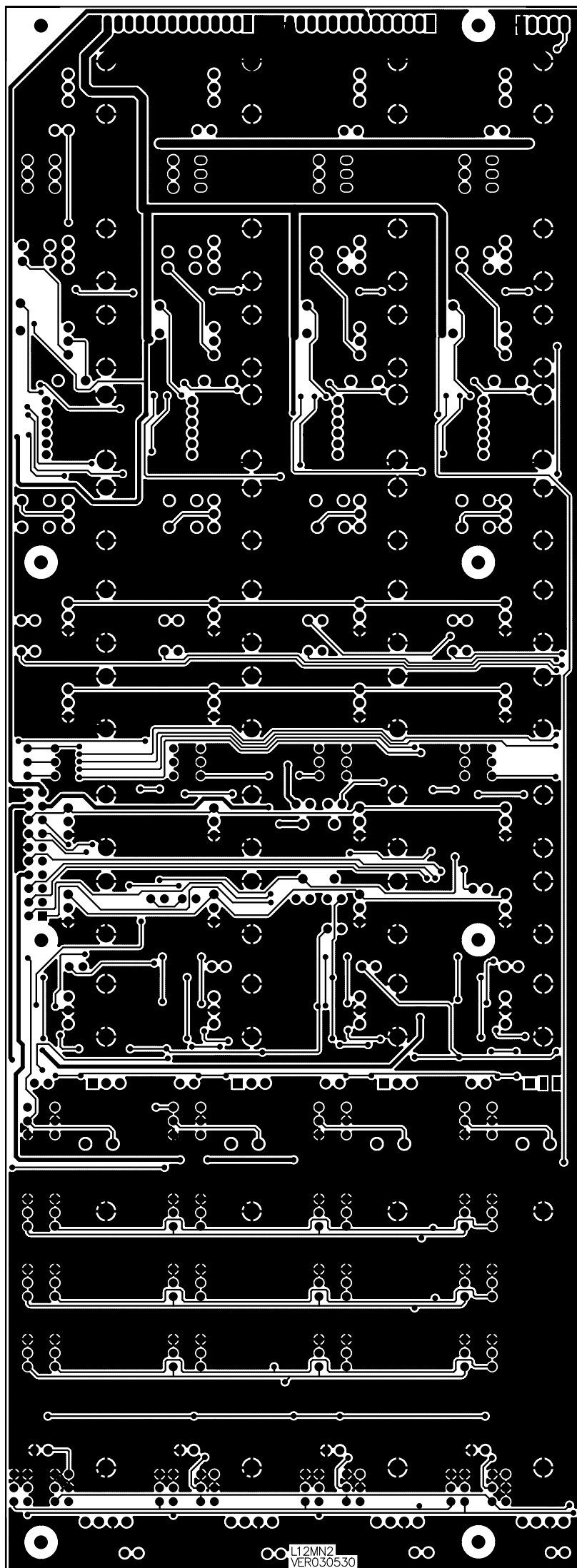


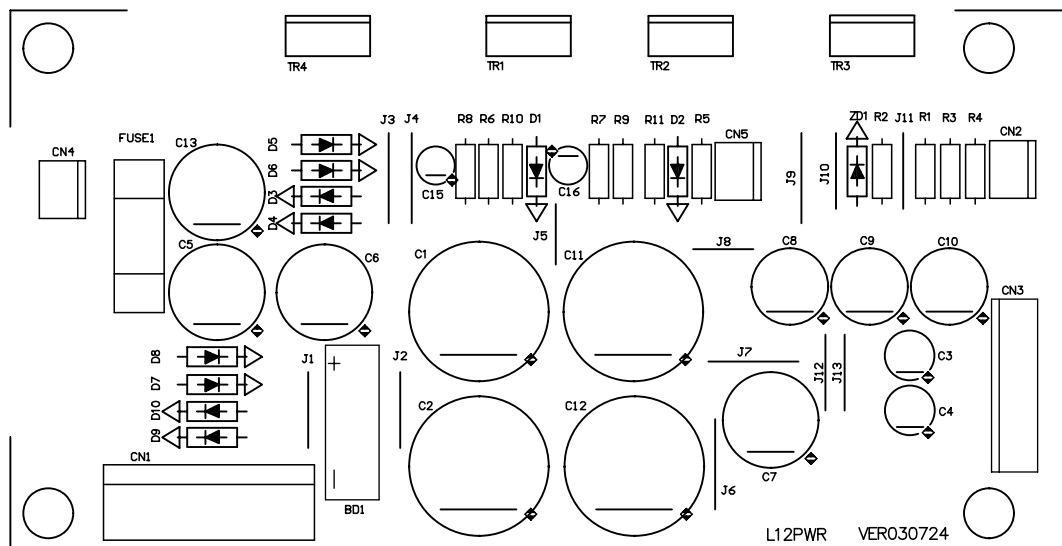


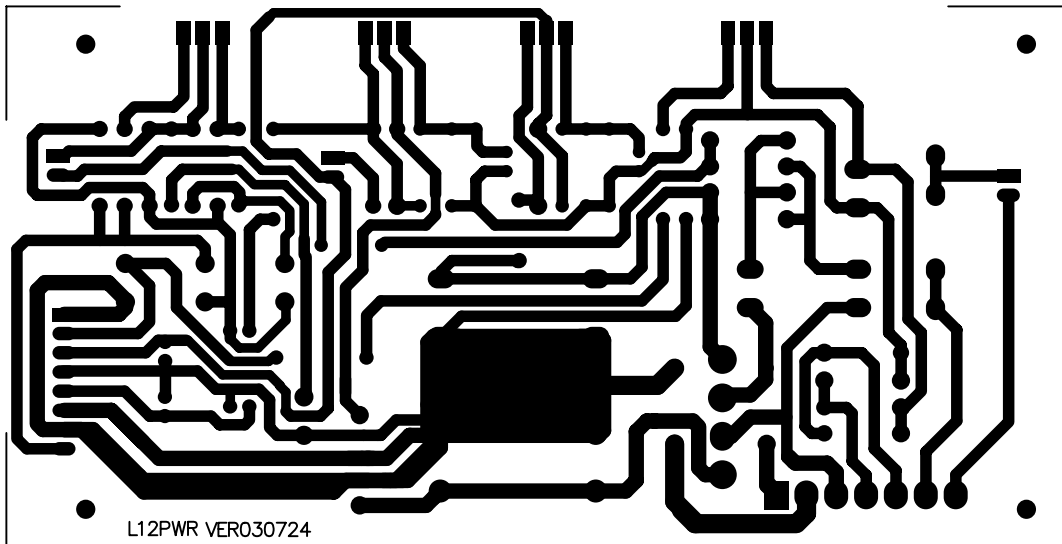




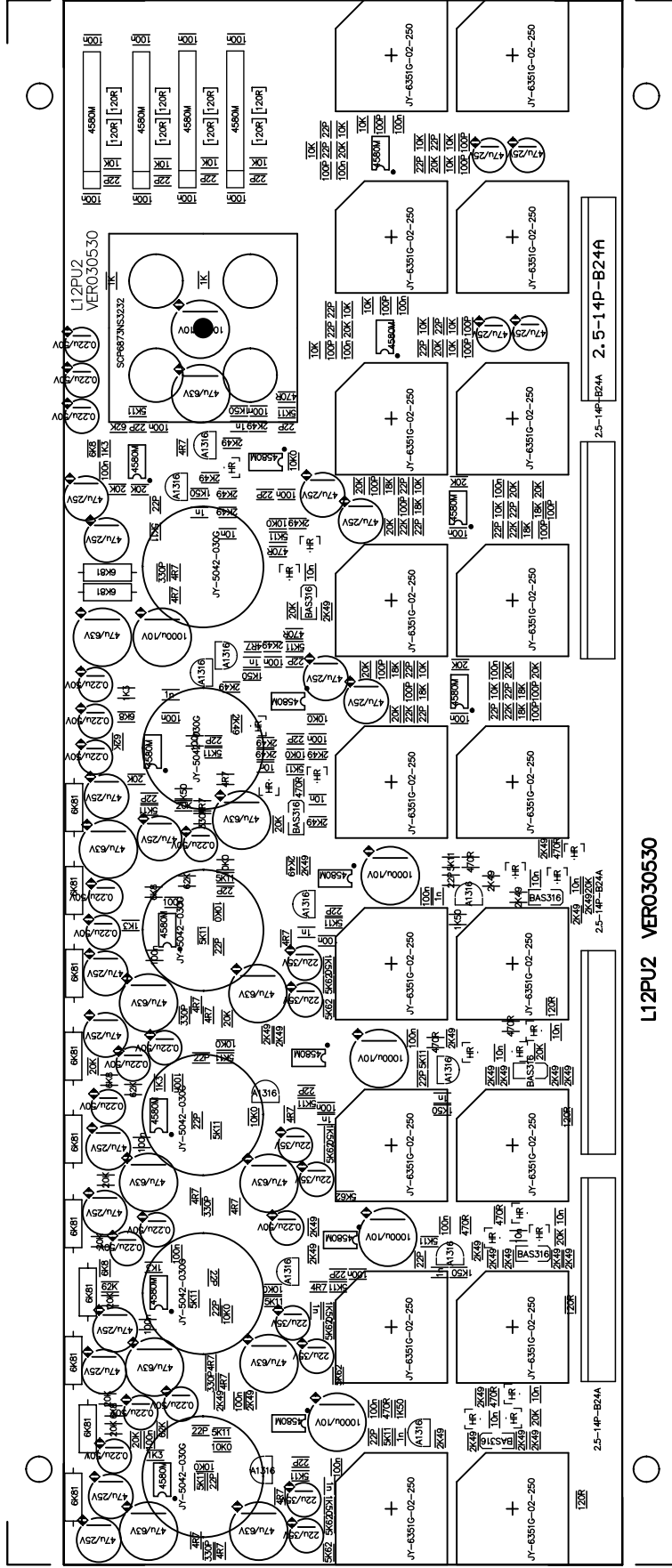


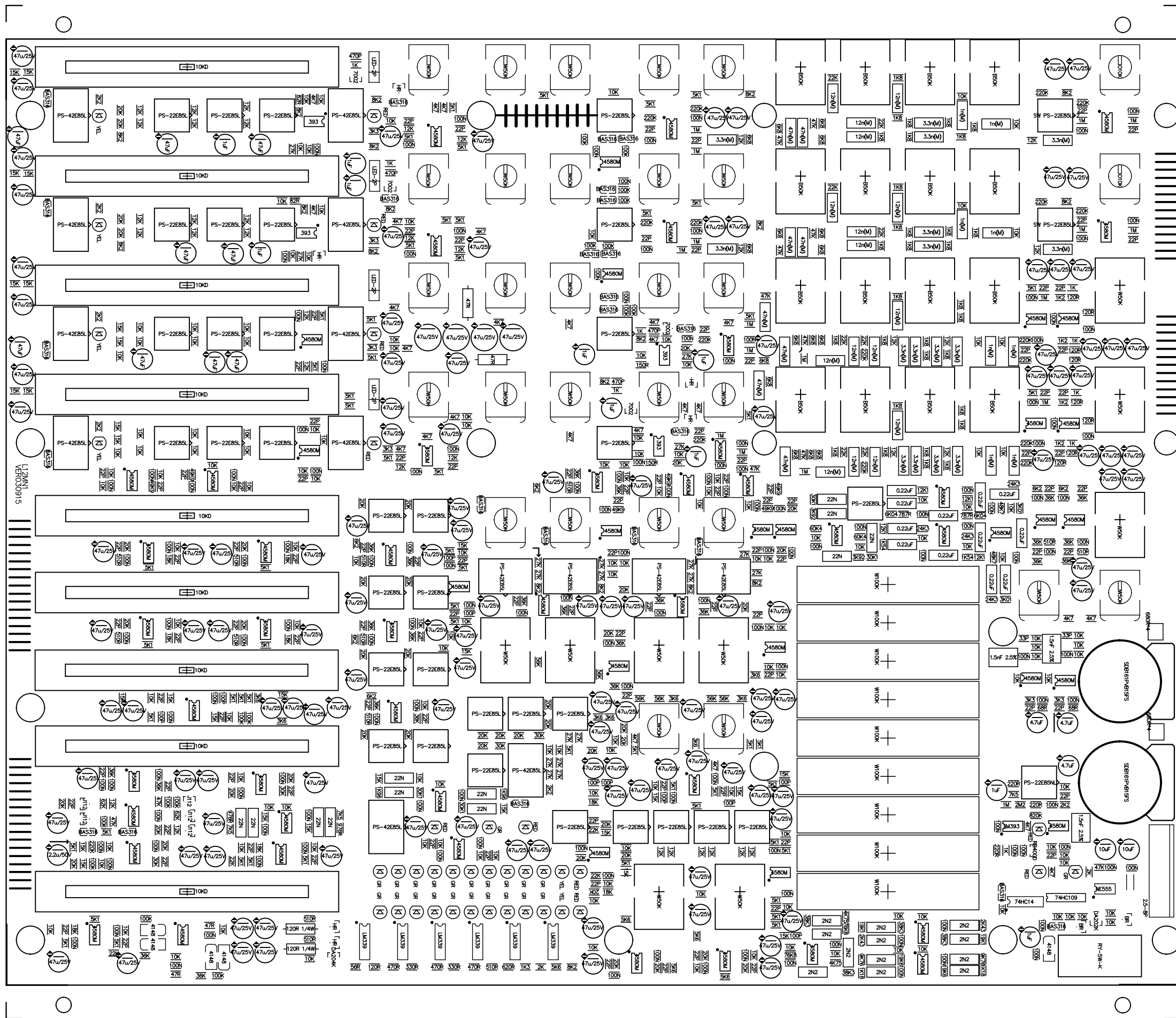


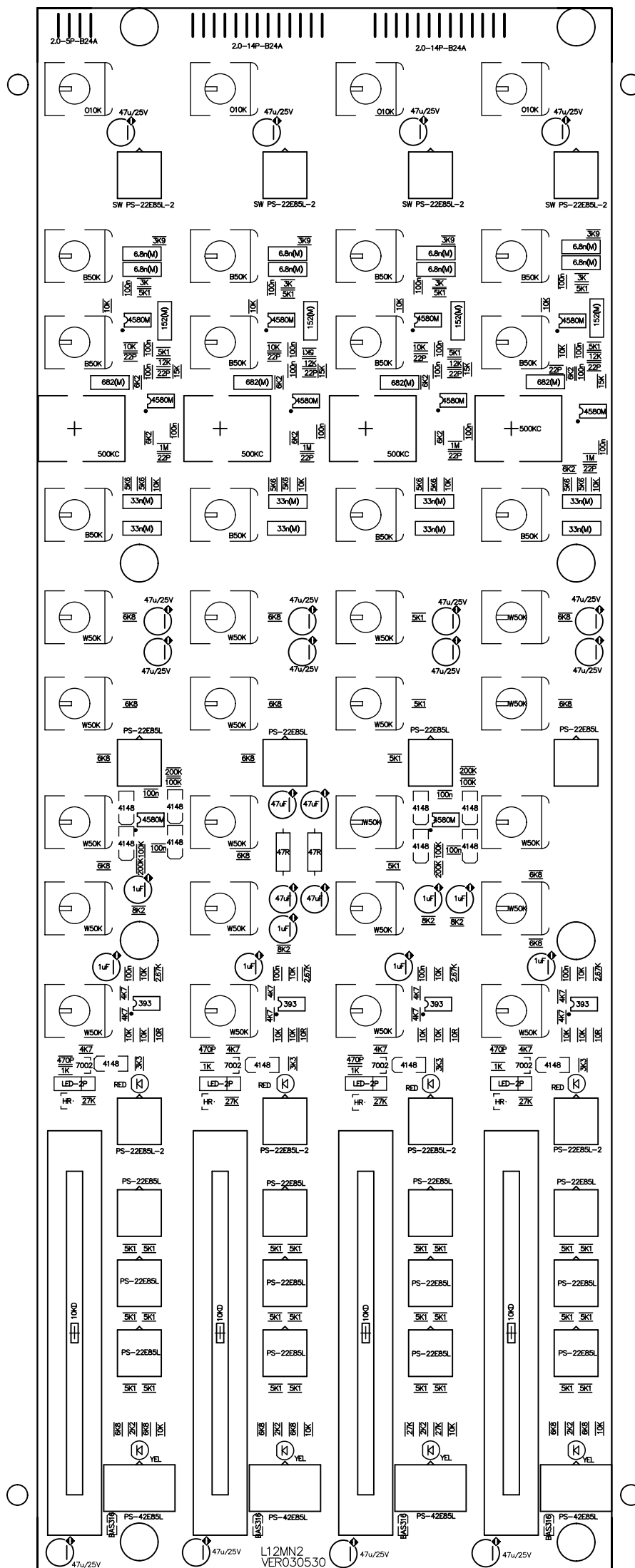


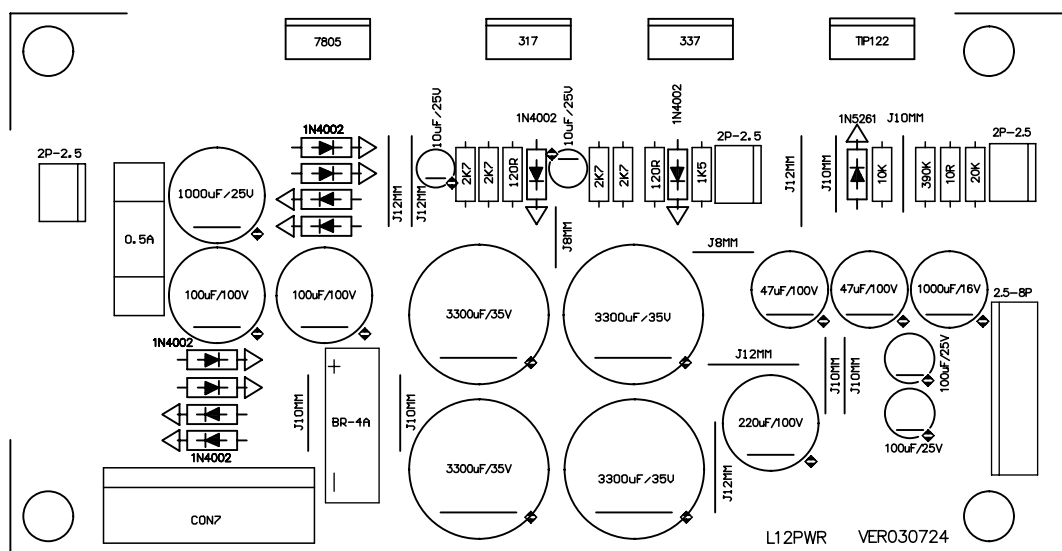


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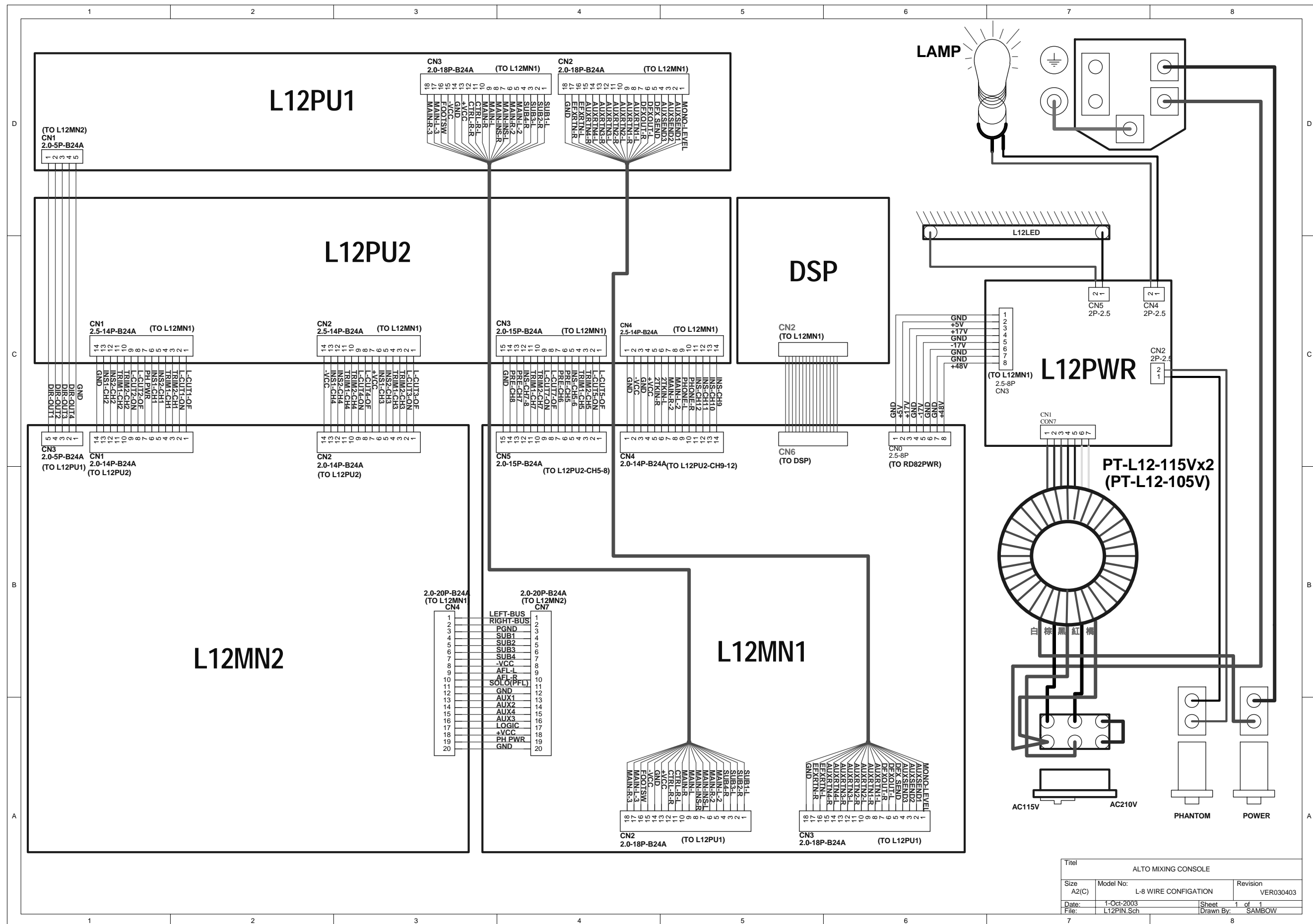








5. Wiring Diagram



7. Electrical Parts List

SEKAKU ELECTRON INDUSTRY CO.,LTD

Multi-Level BOM Structure Listing

Report No.: IEB0_P02
Prepared by JG020028[王聖堡]
Item No. PF00271
DESCRIPTION: L-12
L-12_ALTO_230V

Version

UNIT: PCS
Date: 2003/06/26

Date 2003/10/01
Page No.: 1 / 30

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0001-----	MA03906 panel L12			PCS	1.0000 1	2003/06/26 N
0001-----	MA03905 panel L12			PCS	1.0000 1	2002/12/28 N
0001-----	MA03904 panel L12			PCS	1.0000 1	2002/12/28 N
0001-----	MJ00061 Zn-plated board 1*2135*1220 20.45kg			PCS KG	1.0000 12 0.00	2002/12/28 N %
0002-----	MB02788 rear board L-12			PCS	1.0000 1	2003/06/26 N
0001-----	MB02637 rear board L12			PCS	1.0000 1	2003/04/17 N
0001-----	MB02636 rear board L12			PCS	1.0000 1	2002/12/24 N
0001-----	MJ00058 iron board 1*2135*1220 20.45kg			PCS KG	1.0000 12 0.00	2002/12/24 N %
0002-----	ME00001 screw M4*10*0.7PH			PCS	3.0000 1	2003/07/23 N
0003-----	ME00040 iron pillar hexagon6.35*M3*10.1			PCS	2.0000 1	2003/07/23 N
0004-----	ME00099 screw M3*16*0.5PH			PCS	2.0000 1	2003/07/23 N
0003-----	MJ01159 side board L20 right			PCS	1.0000 1	2003/07/26 N
0001-----	MJ01158 side board L-20 right 1.0t*400*115			PCS	1.0000 1	2002/12/28 N
0001-----	MJ00058 iron board 1*2135*1220 20.45kg			PCS KG	1.0000 90 0.00	2002/12/28 N %
0004-----	NI02638 lacid plastic panel L-12 (3t*97.5*49mm)			PCS	1.0000 1	2003/06/26 N
0001-----	NI02639 lacid plastic panel L-12 (3t*97.5*49mm)			PCS	1.0000 1	2003/05/12 N
0005-----	NI02640 lacid plastic panel L-12 (3t*91.5*56mm)			PCS	1.0000 1	2003/06/26 N
0001-----	NI02641 lacid plastic panel L-12 (3t*91.5*56mm)			PCS	1.0000 1	2003/05/12 N
0006-----	MJ01225 partitions L-12 1.2t*100.5*74.5			PCS	1.0000 1	2003/06/26 N
0001-----	MJ00063 Zn-plated board 1.2*2135*1220 24.54kg			PCS KG	1.0000 300 0.00	2003/06/27 N %
0002-----	ME00041 iron pillar hexagon6.35*M3*6			PCS	3.0000 1	2003/06/27 N
0007-----	NI02620 insulation board 1*86.5*53 L-8			PCS	1.0000 1	2003/06/26 N
					0.00	%

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 Prepared by JG020028[王聖堡]

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Item No. PF00271 Version
 DESCRIPTION: L-12
 L-12_ALTO_230V

UNIT: PCS
 Date: 2003/06/26

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0008-----	MI00584 heat-sink 4*40*20*140 L-12			PCS	1.0000 1 0.00 %	2003/06/26 N
0009-----	MI01765 switch cover L-12			PCS	1.0000 1 0.00 %	2003/06/26 N
0001-----	MI01766 switch cover L-12 1.2t*61.5*19.5*4			PCS	1.0000 1 0.00 %	2003/06/26 N
0001-----	MJ00059 iron board 1.2*2135*1220 24.54kg			PCS KG	1.0000 1320 0.00 %	2003/06/26 N
0010-----	ME00060 socket nut JY-6351G-02-250			PCS	51.0000 1 0.00 %	2003/07/16 N
0011-----	MF00061 washer JY-6351G-02-250			PCS	51.0000 1 0.00 %	2003/07/16 N
0012-----	MG00061 screw M3*10			PCS	19.0000 1 0.00 %	2003/06/26 N
0013-----	HC00342 TNC adoptor WJ-7422			PCS	1.0000 1 0.00 %	2003/06/26 N
0014-----	HA01638 row-wire connector wiring 2P 280			PCS	1.0000 1 0.00 %	2003/07/25 N
0015-----	NI02642 fixed plate L-12 (6.8*110*63.3 white)			PCS	1.0000 1 0.00 %	2003/06/26 N
0016-----	NI02083 knob 10.5*18			PCS	28.0000 1 0.00 %	2003/06/26 N
0017-----	NI02081 knob 10.5*18			PCS	34.0000 1 0.00 %	2003/06/26 N
0018-----	NI02082 knob 10.5*18			PCS	12.0000 1 0.00 %	2003/06/26 N
0019-----	NI02633 knob 10.5*18			PCS	13.0000 1 0.00 %	2003/06/26 N
0020-----	NI02084 knob 10.5*18			PCS	9.0000 1 0.00 %	2003/07/16 N
0021-----	NI02386 konb 14*13mm			PCS	2.0000 1 0.00 %	2003/06/26 N
0022-----	NI01166 slide key 6*7*8 C00L GRAY 8U			PCS	9.0000 1 0.00 %	2003/06/26 N
0023-----	NI02309 knob 24*11.5*11			PCS	8.0000 1 0.00 %	2003/06/26 N
0024-----	NI02352 knob 24*11.5*11			PCS	1.0000 1 0.00 %	2003/06/26 N
0025-----	NI02353 knob 24*11.5*11			PCS	4.0000 1 0.00 %	2003/06/26 N
0026-----	NI01863 key 5.5*W10*7.5			PCS	66.0000 1 0.00 %	2003/06/26 N
0027-----	NI01862 key 5.5*5.5*14.5			PCS	1.0000 1 0.00 %	2003/06/26 N

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Report No.: IEB0_P02
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Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0028-----	NI02377 knob 5.5*7.5mm(内3.3*3.3mm)			PCS	14.0000 1 0.00 %	2003/06/26 N
0029-----	MG00041 screw M3*6			PCS	69.0000 1 0.00 %	2003/06/26 N
0030-----	NI02548 handle 401*31*25mm			PCS	1.0000 1 0.00 %	2003/06/26 N
0031-----	NI02547 handle 401*31*25mm			PCS	1.0000 1 0.00 %	2003/06/26 N
0032-----	MG00027 screw M3*12			PCS	8.0000 1 0.00 %	2003/06/26 N
0033-----	ND00246 non wonen 0.35t*360*100mm black			PCS	1.0000 1 0.00 %	2003/06/26 N
0034-----	ND00247 non wonen 0.35t*112.5*56.5mm black			PCS	1.0000 1 0.00 %	2003/06/26 N
0035-----	MG00304 copper pole M3*14*0.5PH			PCS	21.0000 1 0.00 %	2003/09/08 N
0036-----	MG00284 copper pillar M3*8*0.5PH			PCS	1.0000 1 0.00 %	2003/06/26 N
0037-----	MG00020 screw M3*8			PCS	4.0000 1 0.00 %	2003/06/26 N
0038-----	NI00863 insulate bean T0220B			PCS	4.0000 1 0.00 %	2003/06/26 N
0039-----	TD00191 loop transformer PT-LMIXER			PCS	1.0000 1 0.00 %	2003/08/18 N
0040-----	ME00016 colour nut 4m/m			PCS	3.0000 1 0.00 %	2003/06/26 N
0041-----	MF00038 washer 4* 7*1t			PCS	2.0000 1 0.00 %	2003/09/08 N
0042-----	MF00019 washer 4* 12*1t			PCS	1.0000 1 0.00 %	2003/08/18 N
0043-----	MF00048 washer 4* 8*0.5t			PCS	1.0000 1 0.00 %	2003/06/26 N
0044-----	NC00151 insulation 0.2t*116*22 L-12			PCS	1.0000 1 0.00 %	2003/06/26 N
0045-----	MI01762 fixed bracket 1.2t*112*12*5 L-12			PCS	1.0000 1 0.00 %	2003/06/26 N
0001-----	MJ00063 Zn-plated board 1.2*2135*1220 24.54kg			PCS KG	1.0000 864 0.00 %	2003/06/18 N
0046-----	ME00015 colour nut 3m/m			PCS	2.0000 1 0.00 %	2003/07/16 N
0047-----	HA02337 wire 16P-16P PH1.27 105mm			PCS	1.0000 1 0.00 %	2003/06/26 N
0048-----	MG00170 screw M3*14			PCS	2.0000 1 0.00 %	2003/06/26 N

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Report No.: IEBO_P02
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Item No. PF00271
DESCRIPTION: L-12
L-12_ALTO_230V

Version

UNIT: PCS
Date: 2003/06/26

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0049-----	HI00120 slide switch			PCS	1.0000	2003/06/26
	L21-22A				1	N
					0.00	%
0050-----	HA01982 wire			PCS	1.0000	2003/06/26
	60mm black				1	N
					0.00	%
0051-----	HC00008 AC outlet			PCS	1.0000	2003/06/26
	3515 A TYPE(RF-2004-C-4.8)				1	N
					0.00	%
0052-----	HD00061 fuse			PCS	1.0000	2003/08/04
	400mA 5.2*20mm CSA/S/UL/VDE				1	N
					0.00	%
0053-----	HA01835 P.V.C single wave wired UL1617			PCS	1.0000	2003/09/08
	80 brown				1	N
					0.00	%
0054-----	HA01174 signle terminal wiring CF:W146			PCS	1.0000	2003/06/26
	80 green/yellow				1	N
					0.00	%
0055-----	MG00042 screw			PCS	4.0000	2003/07/16
	M3*10				1	N
					0.00	%
0056-----	HI00026 power switch			PCS	1.0000	2003/06/26
	RA12KKATOF 2P				1	N
					0.00	%
0057-----	HI00171 power switch			PCS	1.0000	2003/06/26
	R612KKATOF1				1	N
					0.00	%
0058-----	HA01615 header wiring			PCS	1.0000	2003/07/16
	2P 200				1	N
					0.00	%
0059-----	@NI00252 sleeve			PCS	12.0000	2003/06/26
	4*20mm				1	N
					0.00	%
0001-----	NI00248 sleeve			M	20.0000	2002/06/04
	4*1000mm				1000	N
					0.00	%
0060-----	@NI00268 sleeve			PCS	1.0000	2003/06/26
	6*20mm				1	N
					0.00	%
0001-----	NI00266 sleeve			M	20.0000	2002/06/04
	6*1000mm				1000	N
					0.00	%
0061-----	HA02355 wire			PCS	1.0000	2003/06/26
	8P-8P 200mm UL1007 22AWG				1	N
					0.00	%
0062-----	HA00861 power cord Europe 3P			PCS	1.0000	2003/06/26
	LT-312+LT-501				1	N
					0.00	%
0063-----	NI00218 cable tie-black			PCS	2.0000	2003/06/26
	ALT-102SB				1	N
					0.00	%
0064-----	NI01627 fixed bracket			PCS	2.0000	2003/06/26
	CM-19S				1	N
					0.00	%
0065-----	NI02519 knob			PCS	4.0000	2003/06/26
	15.9*8.0mm(RF-006)				1	N
					0.00	%
0066-----	NF00061 assurance card			PCS	1.0000	2003/06/26
	ALTO				1	N
					0.00	%
0067-----	NF01492 instruction			PCS	1.0000	2003/06/26
	L-12 ALTO				1	N
					0.00	%
0068-----	NB02470 colour box			PCS	1.0000	2003/06/26
	L-12				1	N
					0.00	%

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Report No.: IEB0_P02
 Prepared by JG020028[王聖堡]
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 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate @:Phantom Layer	Attrition Rate
0069-----	NB02467 box L-12			PCS	1.0000 2 0.00 %	2003/07/25 N
0070-----	HJ00006 desiccant 30g			PCS	1.0000 1 0.00 %	2003/06/26 N
0071-----	NA00135 PE bag 0.05t*610*500mm			PCS KG	1.0000 1 0.00 %	2003/06/26 N
0072-----	NE05004 label ALTO			PCS	4.0000 1 0.00 %	2003/06/26 N
0073-----	NE11466 label L-12_ALTO			PCS	4.0000 1 0.00 %	2003/06/26 N
0001-----	NH00012 bond paper 0.04*1M			M	1.0000 80 0.00 %	2003/06/11 N
0002-----	NI00014 membrane 0.035*1M			M	1.0000 80 0.00 %	2003/06/11 N
0074-----	HK03982 PC board P-L12PU1-DIP			PCS	1.0000 1 0.00 %	2003/06/26 N
0001-----	HC00125 MIC jack JY-6351G-02-250 X1,X2,X3,X4,X5,X6,X7,X8,X9,X10,X11,X12,X13,X14,X15, X16,X17,X18,X19,X20,X21,X22,X23,X24,X25,X26,X27,X28, X29,X30,X31,X34,X35			PCS	33.0000 1 0.00 %	2003/06/26 N
0002-----	HA01925 jumper wire 10mm JP1,JP2,JP3,JP4,JP5,JP6,JP7,JP11			PCS	8.0000 1 0.00 %	2003/06/26 N
0001-----	HA02249 wire 0.6			M KG	0.0200 1 0.00 %	2002/09/19 N
0003-----	HA02444 wire 18P(male)-18P(female) 600mm UL1007 28AWG CN2,CN3			PCS	2.0000 1 0.00 %	2003/06/26 N
0004-----	HA01564 row-wire connector wiring 5P(male)-5P(parent) 180 CN1			PCS	1.0000 1 0.00 %	2003/06/26 N
0005-----	CB00175 electrolytic capacitor 47uF/25V SLL 5*11 C1,C2,C3			PCS	3.0000 1 0.00 %	2003/06/26 N
0006-----	HA01919 jumper wire 5mm JP8,JP9,JP10			PCS	3.0000 1 0.00 %	2003/06/26 N
0001-----	HA02249 wire 0.6			M KG	0.0150 1 0.00 %	2003/03/31 N
0007-----	HC00392 shape male JY-5030-030G 180° X32,X33			PCS	2.0000 1 0.00 %	2003/06/26 N

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 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition Rate	
0008-----	HI00163 push-button switch 2 stage 12P PS-42E85 SW1			PCS	1.0000 1 0.00	2003/06/26 N %
0009-----	RC00235 potentiometer W50K RV09BC-40-30F-W50K-0C VR1			PCS	1.0000 1 0.00	2003/06/26 N %
0010-----	HK03983 PC board P-L12PU1-SMD			PCS	1.0000 1 0.00	2003/06/26 N %
0001-----	HB00955 pc board L12PU1_VER030530			PCS	1.0000 1 0.00	2003/06/26 N %
0002-----	CI00075 SMD ceramic capacitor 0603 0.1uF/50V Y5V +80,-20% C5,C6			PCS	2.0000 1 0.00	2003/06/26 N %
0003-----	RD00007 SMD fixed resistor 1/10W 120 ±5% 0805 R1,R2,R3,R4,R5,R6,R7,R8,R9,R10,R11,R12,R13,R14,R15, R16,R17,R18,R19,R20,R21,R22,R23,R24,R25,R26,R27,R28, R29,R30,R31,R32,R33,R34,R35,R36,R37,R38,R39,R40,R41, R42,R43,R44,R45,R46,R47,R48,R56,R57			PCS	50.0000 1 0.00	2003/06/26 N %
0004-----	CI00051 SMD ceramic capacitor 0603 22PF/50V NPO ±5% C4			PCS	1.0000 1 0.00	2003/06/26 N %
0005-----	RD00107 SMD fixed resistor 1/10W 30K ±5% 0603 R55			PCS	1.0000 1 0.00	2003/06/26 N %
0006-----	RD00353 SMD fixed resistor 1/10W 36K ±5% 0603 R50			PCS	1.0000 1 0.00	2003/06/26 N %
0007-----	RD00352 SMD fixed resistor 1/10W 3.6K ±5% 0603 R49			PCS	1.0000 1 0.00	2003/06/26 N %
0008-----	SG00122 SMD integrated circuit NJM4580M-TE3 U1			PCS	1.0000 1 0.00	2003/06/26 N %
0009-----	RD00440 SMD fixed resistor 1/10W 5.1K ±5% 0805 R51,R52,R53,R54			PCS	4.0000 1 0.00	2003/06/26 N %
0075-----	HK03984 PC board P-L12PU2-DIP			PCS	1.0000 1 0.00	2003/06/26 N %
0001-----	CB00003 electrolytic capacitor 0.22uF/50V C16,C16-1,C16-2,C17,C17-1,C17-2,C17-3,C16-3,C18,C18-1, C18-2,C18-3,C50,C50-1,C51,C51-1,C52,C52-1			PCS	18.0000 1 0.00	2003/06/26 N %

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Report No.: IEB0_P02
 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0002-----	CB00074 electrolytic capacitor 1000uF/10V 8*11 C19,C19-1,C19-2,C19-3,C53,C53-1			PCS	6.0000 1 0.00 %	2003/06/26 N
0003-----	HA02446 wire 14P(male)-14P(female) 60mm UL1007 28AWG CN1,CN2,CN4			PCS	3.0000 1 0.00 %	2003/06/26 N
0004-----	HA02445 wire 15P(male)-15P(female) 60mm UL1007 28AWG CN3			PCS	1.0000 1 0.00 %	2003/06/26 N
0005-----	CB00029 electrolytic capacitor 22uF/35V 5*11 C9,C9-1,C9-2,C9-3,C10-1,C10,C10-2,C10-3			PCS	8.0000 1 0.00 %	2003/06/26 N
0006-----	CB00175 electrolytic capacitor 47uF/25V SLL 5*11 C107,C108,C109,C110,C7,C7-1,C7-2,C7-3,C8,C8-1,C8-2, C8-3,C54,C54-1,C55,C55-1,C56,C56-1,C57,C57-1			PCS	20.0000 1 0.00 %	2003/06/26 N
0007-----	CB00042 electrolytic capacitor 47uF/63V 105 LZ 8*11 C12,C12-1,C12-2,C12-3,C13,C13-1,C13-2,C13-3,C36,C36-1, C37,C37-1			PCS	12.0000 1 0.00 %	2003/06/26 N
0008-----	RA00505 precise resistor 1/4W 6.81K M type R1,R1-1,R1-2,R1-3,R2,R2-1,R2-2,R2-3,R38,R38-1,R39, R39-1			PCS	12.0000 1 0.00 %	2003/06/26 N
0009-----	SB00050 transistor 2SA1316-GR TR1,TR1-1,TR1-2,TR1-3,TR2,TR2-1,TR2-2,TR2-3,TR6,TR6-1, TR7,TR7-1			PCS	12.0000 1 0.00 %	2003/06/26 N
0010-----	HC00126 MIC jack for balance JY-5042-030G female plug 180° X3,X3-1,X3-2,X3-3,X6,X6-1			PCS	6.0000 1 0.00 %	2003/06/26 N
0011-----	HC00125 MIC jack JY-6351G-02-250 X1,X1-1,X1-2,X1-3,X2,X2-1,X2-2,X2-3,X4,X4-1,X5,X5-1, X7,X8,X9,X10,X11,X12			PCS	18.0000 1 0.00 %	2003/06/26 N
0012-----	SD00007 integrated circuit BA15218N (M5218L substitute) U8,U9,U10,U11			PCS	4.0000 1 0.00 %	2003/06/26 N
0013-----	HC00403 rca SCP6873NS3232T2 4P X13			PCS	1.0000 1 0.00 %	2003/06/26 N

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Report No.: IEBO_P02
Prepared by JG020028[王聖堡]

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Item No. PF00271
DESCRIPTION: L-12
L-12_ALTO_230V

Version

UNIT: PCS
Date: 2003/06/26

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate @:Phantom Layer	Attrition Rate
0014-----	HK03985 PC board			PCS	1.0000 1	2003/06/26 N
0001-----	P-L12PU2-SMD HB00956 pc board			PCS	0.00 1	% 2003/06/26 N
0002-----	L12PU2_VER030530 CI00059 SMD ceramic capacitor 0603			PCS	0.00 16.0000	% 2003/06/26 N
	100PF/50V NPO ±5%				0.00	%
	C58,C58-1,C59,C59-1,C60,C60-1,C61,C61-1,C91,C92,C93, C94,C95,C96,C97,98					
0003-----	CI00075 SMD ceramic capacitor 0603			PCS	40.0000 1	2003/06/26 N
	0.1uF/50V Y5V +80,-20%				0.00	%
	C24,C25,C26,C27,C28,C29,C30,C31,C32,C33,C34,C35,C63, C64,C65,C66,C67,C68,C69,C70,C71,C72,C73,C74,C75,C76, C77,C78,C79,C80,C81,C82,C83,C84,C85,C86,C87,C89,C90, C88					
0004-----	RD00101 SMD fixed resistor 1/10W			PCS	20.0000 1	2003/06/26 N
	10K ±5% 0603				0.00	%
	R70,R70-1,R71,R71-1,R76,R77,R78,R79,R80,R81,R82,R83, R84,R85,R86,R87,R92,R93,R94,R95					
0005-----	RD00214 SMD precise resistor 1/10W			PCS	12.0000 1	2003/06/26 N
	10.0K ±1% 0603				0.00	%
	R26,R26-1,R26-2,R26-3,R27,R27-1,R27-2,R27-3,R61,R61-1, R62,R62-1					
0006-----	CI00071 SMD ceramic capacitor 0603			PCS	12.0000 1	2003/06/26 N
	0.01uF/50V X7R ±10%				0.00	%
	C1,C1-1,C1-2,C1-3,C2,C2-1,C2-2,C2-3,C38,C38-1,C39, C39-1					
0007-----	RD00069 SMD fixed resistor 1/10W			PCS	4.0000 1	2003/06/26 N
	120 ±5% 0603				0.00	%
	R104,R104-1,R104-2,R104-3					
0008-----	RD00007 SMD fixed resistor 1/10W			PCS	8.0000 1	2003/06/26 N
	120 ±5% 0805				0.00	%
	R96,R97,R98,R99,R100,R101,R102,R103					
0009-----	RD00104 SMD fixed resistor 1/10W			PCS	8.0000 1	2003/06/26 N
	18K ±5% 0603				0.00	%
	R66,R66-1,R67,R67-1,R68,R68-1,R69,R69-1					
0010-----	RD00083 SMD fixed resistor 1/10W			PCS	2.0000 1	2003/06/26 N
	1.0K ±5% 0603				0.00	%
	R31,R32					
0011-----	RD00351 SMD fixed resistor 1/10W			PCS	6.0000 1	2003/06/26 N
	1.3K ±5% 0603				0.00	%
	R28,R28-1,R28-2,R28-3,R64,R64-1					
0012-----	RD00201 SMD precise resistor 1/10W			PCS	12.0000 1	2003/06/26 N
	1.50K ±1% 0603				0.00	%
	R15,R15-1,R15-2,R15-3,R16,R16-1,R16-2,R16-3,R40,R40-1,					

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Report No.: IEBO_P02
Prepared by JG020028[王聖堡]

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Item No. PF00271
DESCRIPTION: L-12
L-12_ALTO_230V

Version

UNIT: PCS
Date: 2003/06/26

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
	R41,R41-1					
0013-----	CI00065				12.0000	2003/06/26
	SMD ceramic capacitor 0603			PCS	1	N
	0.001uF/50V X7R ±10%				0.00	%
	C14,C14-1,C14-2,C14-3,C15,C15-1,C15-2,C15-3,C40,C40-1,C41,C41-1					
0014-----	RD00306				32.0000	2003/06/26
	SMD fixed resistor 1/10W			PCS	1	N
	20K ±5% 0603				0.00	%
	R17,R17-1,R17-2,R17-3,R18,R18-1,R18-2,R18-3,R19,R19-1,R19-2,R19-3,R42,R42-1,R43,R43-1,R44,R44-1,R45-1,R45,R46,R46-1,R47,R47-1,R73,R73-1,R75,R75-1,R88,R89,R90,R91					
0015-----	CI00051				44.0000	2003/06/26
	SMD ceramic capacitor 0603			PCS	1	N
	22PF/50V NPO ±5%				0.00	%
	C3,C3-1,C3-2,C3-3,C4,C4-1,C4-2,C4-3,C5,C5-1,C5-2,C5-3,C6,C6-1,C6-2,C6-3,C42,C42-1,C43,C43-1,C44,C44-1,C45,C45-1,C46,C46-1,C47,C47-1,C48,C48-1,C49,C49-1,C99,C100,C101,C102,C103,C104,C105,C106,C111,C112,C113,C114					
0016-----	RD00204				42.0000	2003/06/26
	SMD precise resistor 1/10W			PCS	1	N
	2.49K ±1% 0603				0.00	%
	R3,R3-1,R3-2,R3-3,R4,R4-1,R4-2,R4-3,R5,R5-1,R5-2,R5-3,R6,R6-1,R6-2,R6-3,R7,R7-1,R7-2,R7-3,R8,R8-1,R8-2,R8-3,R9,R9-1,R9-2,R9-3,R48,R48-1,R49,R49-1,R50,R50-1,R51,R51-1,R52,R52-1,R53,R53-1,R54,R54-1					
0017-----	CI00062				6.0000	2003/06/26
	SMD ceramic capacitor 0603			PCS	1	N
	330PF/50V NPO ±5 %				0.00	%
	C11,C11-1,C11-2,C11-3,C62,C62-1					
0018-----	RD00105				4.0000	2003/06/26
	SMD fixed resistor 1/10W			PCS	1	N
	22K ±5% 0603				0.00	%
	R72,R72-1,R74,R74-1					
0019-----	SG00122				16.0000	2003/06/26
	SMD integrated circuit			PCS	1	N
	NJM4580M-TE3				0.00	%
	U1,U1-1,U1-2,U1-3,U2,U2-1,U2-2,U2-3,U3,U3-1,U4,U4-1,U5,U5-1,U6,U7					
0020-----	RD00078				12.0000	2003/06/26
	SMD fixed resistor 1/10W			PCS	1	N
	470 ±5% 0603				0.00	%
	R20,R20-1,R20-2,R20-3,R21,R21-1,R21-2,R21-3,R55,R55-1,R56,R56-1					
0021-----	RD00355				18.0000	2003/06/26
	SMD fixed resistor 1/10W			PCS	1	N
	4.7 ±5% 0603				0.00	%
	R10,R10-1,R10-2,R10-3,R11,R11-1,R11-2,R11-3,R12,R12-1,R12-2,R12-3,R35,R35-1,R36,R36-1,R37,37-1					
0022-----	RD00210				24.0000	2003/06/26
	SMD precise resistor 1/10W			PCS	1	N
	5.11K ±1% 0603				0.00	%
	R22,R22-1,R22-2,R22-3,R23,R23-1,R23-2,R23-3,R24,R24-1,R24-2,R24-3,R25,R25-1,R25-2,R25-3,R57,R57-1,R58,R58-1,R59,R59-1,R60,R60-1					

Multi-Level BOM Structure Listing

Report No.: IEB0_P02
 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

Date 2003/10/01
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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0023-----	RD00365 SMD precise resistor 1/10W 5.62K ±1% 0603 R13,R13-1,R13-2,R13-3,R14,R14-1,R14-2,R14-3			PCS	8.0000 1 0.00	2003/06/26 N %
0024-----	RD00113 SMD fixed resistor 1/10W 62K ±5% 0603 R30,R30-1,R30-2,R30-3,R63,R63-1			PCS	6.0000 1 0.00	2003/06/26 N %
0025-----	RD00097 SMD fixed resistor 1/10W 6.8K ±5% 0603 R29,R29-1,R29-2,R29-3,R65,R65-1			PCS	6.0000 1 0.00	2003/06/26 N %
0026-----	SE00028 diode BAS316,115 D1,D1-1,D1-2,D1-3,D2,D2-1			PCS	6.0000 1 0.00	2003/06/26 N %
0027-----	SF00004 SMD transistor 2SA1036K(R) (MMBT3906LT1) TR8,TR8-1,TR9,TR9-1,TR10-1,TR3,TR3-1,TR3-2,TR3-3,TR4, TR4-1,TR4-2,TR4-3,TR5,TR5-1,TR5-2,TR5-3,TR10			PCS	18.0000 1 0.00	2003/06/26 N %
0076-----	HK03991 PC board P-L12MN2-DIP			PCS	1.0000 1 0.00	2003/06/26 N %
0001-----	RA00174 fixed resistor 1/4W 47 M type R52,R53			PCS	2.0000 1 0.00	2003/06/26 N %
0002-----	CB00009 electrolytic capacitor 1uF/50V 4*7 C21,C21-1,C21-2,C21-3,C22,C22-1,C22-2,C22-3			PCS	8.0000 1 0.00	2003/06/26 N %
0003-----	CB00175 electrolytic capacitor 47uF/25V SLL 5*11 C2,C2-1,C2-2,C2-3,C3,C3-1,C3-2,C3-3,C4,C4-1,C4-2,C4-3, C28,C28-1,C28-2,C28-3,C24,C25,C26,C27			PCS	20.0000 1 0.00	2003/06/26 N %
0004-----	CF00023 metal-film capacitor MSC 0.033uF/63V 5% CASE01 C11,C11-1,C11-2,C11-3,C12,C12-1,C12-2,C12-3			PCS	8.0000 1 0.00	2003/06/26 N %
0005-----	CF00070 metal-film capacitor FKP 0.0015uF/63V 2.5% (PFR5 152H63J11L4) C10,C10-1,C10-2,C10-3			PCS	4.0000 1 0.00	2003/06/26 N %
0006-----	CF00012 metal-film capacitor MSC 0.0068uF/100V 5% CASE01 C7,C7-1,C7-2,C7-3,C8,C8-1,C8-2,C8-3,C1,C1-1,C1-2,C1-3			PCS	12.0000 1 0.00	2003/06/26 N %
0007-----	HI00162 push-button switch 2 paragraphs 6p PS-22E8552L SW3,SW3-1,SW3-2,SW3-3,SW5,SW5-1,SW5-2,SW5-3,SW6,SW6-1, SW6-2,SW6-3,SW7,SW7-1,SW7-2,SW7-3,SW2,SW2-1,SW2-2, SW2-3,SW1,SW1-1,SW1-2,SW1-3			PCS	24.0000 1 0.00	2003/06/26 N %

Multi-Level BOM Structure Listing

Report No.: IEB0_P02
 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0008-----	HI00163 push-button switch 2 stage 12P PS-42E85 SW4,SW4-1,SW4-2,SW4-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0009-----	RC00284 potentiometer D10K RF6011YP600F-10KD(AA) VR5,VR5-1,VR5-2,VR5-3			PCS	4.0000 1 0.00 %	2003/07/16 N
0010-----	RC00296 potentiometer 010K RV09BC-40-30F-02C10K VR11,VR11-1,VR11-2,VR11-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0011-----	RC00233 potentiometer B50K RV09BC-40-30F-B50K-0C VR1,VR1-1,VR1-2,VR1-3,VR2,VR2-1,VR2-2,VR2-3,VR4,VR4-1, VR4-2,VR4-3			PCS	12.0000 1 0.00 %	2003/06/26 N
0012-----	RC00235 potentiometer W50K RV09BC-40-30F-W50K-0C VR6,VR6-1,VR6-2,VR6-3,VR7,VR7-1,VR7-2,VR7-3,VR8,VR8-1, VR8-2,VR8-3,VR9,VR9-1,VR9-2,VR9-3,VR10,VR10-1,VR10-2, VR10-3			PCS	20.0000 1 0.00 %	2003/06/26 N
0013-----	RC00307 potentiometer C500K RV112BC-40-30A-C500K-0C VR3,VR3-1,VR3-2,VR3-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0014-----	SA00054 L.E.D high intensity 3m/m round(yellow)long foot 26 LD1,LD1-1,LD1-2,LD1-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0015-----	SA00053 L.E.D high intensity 3m/m round(red)long foot 26mm LD2,LD2-1,LD2-2,LD2-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0016-----	SA00051 L.E.D 3 orange,green B0G303b LD3,LD3-1,LD3-2,LD3-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0017-----	NI01782 LED spacer support LEDS-11 11mm LD1,LD1-1,LD1-2,LD1-3,LD2,LD2-1,LD2-2,LD2-3			PCS	8.0000 1 0.00 %	2003/06/26 N
0018-----	NI02588 led LED3*11 11mm LD3,LD3-1,LD3-2,LD3-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0019-----	HC00321 wire 14P 2.0mm 180° CN1,CN2			PCS	2.0000 1 0.00 %	2003/06/26 N
0020-----	HC00256 row-wire header 5P 2.0mm 180° CN3			PCS	1.0000 1 0.00 %	2003/06/26 N

Multi-Level BOM Structure Listing

Report No.: IEBO_P02
 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

Date 2003/10/01
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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0021-----	HC00154 row-pin(double)#2200 2.54 180° 2*10P(gold-plated) 6/11.6mm CN4			PCS	1.0000 1 0.00	2003/07/16 N %
0022-----	HK03999 PC board P-L12MN2-SMD			PCS	1.0000 1 0.00	2003/06/26 N %
0001-----	HB00959 pc board L12MN2_VER030530			PCS	1.0000 1 0.00	2003/06/26 N %
0002-----	RD00067 SMD fixed resistor 1/10W 82 ±5% 0603 R44,R44-1,R44-2,R44-3			PCS	4.0000 1 0.00	2003/07/16 N %
0003-----	RD00083 SMD fixed resistor 1/10W 1.0K ±5% 0603 R51,R51-1,R51-2,R51-3			PCS	4.0000 1 0.00	2003/06/26 N %
0004-----	RD00088 SMD fixed resistor 1/10W 2.2K ±5% 0603 R23,R23-1,R23-2,R23-3			PCS	4.0000 1 0.00	2003/06/26 N %
0005-----	RD00090 SMD fixed resistor 1/10W 3.0K ±5% 0603 R1,R1-1,R1-2,R1-3			PCS	4.0000 1 0.00	2003/06/26 N %
0006-----	RD00091 SMD fixed resistor 1/10W 3.3K ±5% 0603 R26,R26-1,R26-2,R26-3			PCS	4.0000 1 0.00	2003/06/26 N %
0007-----	RD00092 SMD fixed resistor 1/10W 3.9K ±5% 0603 R18,R18-1,R18-2,R18-3			PCS	4.0000 1 0.00	2003/06/26 N %
0008-----	RD00093 SMD fixed resistor 1/10W 4.7K ±5% 0603 R29,R29-1,R29-2,R29-3,R30,R30-1,R30-2,R30-3,R49,R49-1, R49-2,R49-3			PCS	12.0000 1 0.00	2003/06/26 N %
0009-----	RD00094 SMD fixed resistor 1/10W 5.1K ±5% 0603 R6,R6-1,R6-2,R6-3,R7,R7-1,R7-2,R7-3,R8,R8-1,R8-2,R8-3, R9,R9-1,R9-2,R9-3,R10,R10-1,R10-2,R10-3,R11,R11-1, R11-2,R11-3,R12,R12-1,R12-2,R12-3,R13,R13-1,R13-2, R13-3			PCS	32.0000 1 0.00	2003/07/16 N %
0010-----	RD00095 SMD fixed resistor 1/10W 5.6K ±5% 0603 R24,R24-1,R24-2,R25,R25-1,R25-2,R25-3,R24-3			PCS	8.0000 1 0.00	2003/06/26 N %
0011-----	RD00096 SMD fixed resistor 1/10W 6.2K ±5% 0603 R21,R21-1,R21-2,R21-3,R22,R22-1,R22-2,R22-3			PCS	8.0000 1 0.00	2003/06/26 N %

Multi-Level BOM Structure Listing

Report No.: IEBO_P02
 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0012-----	RD00097 SMD fixed resistor 1/10W 6.8K ±5% 0603 R14,R14-1,R14-3,R15,R15-3,R16,R16-3,R15-1,R16-1,R17, R17-1,R17-3,R27,R27-1,R27-3,R28,R28-1,R28-3,R14-2, R15-2,R16-2,R17-2,R27-2,R28-2			PCS	24.0000 1 0.00 %	2003/07/16 N
0013-----	RD00099 SMD fixed resistor 1/10W 8.2K ±5% 0603 R43,R43-1,R43-2,R43-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0014-----	RD00101 SMD fixed resistor 1/10W 10K ±5% 0603 R2,R2-1,R2-2,R2-3,R3,R3-1,R3-2,R3-3,R4,R4-1,R4-2,R4-3, R5,R5-1,R5-2,R5-3,R45,R45-1,R45-2,R45-3,R47,R47-1, R47-2,R47-3,R48,R48-1,R48-2,R48-3,R46,R46-1,R46-2, R46-3			PCS	32.0000 1 0.00 %	2003/07/16 N
0015-----	RD00102 SMD fixed resistor 1/10W 12K ±5% 0603 R20,R20-1,R20-2,R20-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0016-----	RD00103 SMD fixed resistor 1/10W 15K ±5% 0603 R40,R40-1,R40-2,R40-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0017-----	RD00106 SMD fixed resistor 1/10W 27K ±5% 0603 R50,R50-1,R50-2,R50-3			PCS	4.0000 1 0.00 %	2003/07/16 N
0018-----	RD00116 SMD fixed resistor 1/10W 100K ±5% 0603 R42,R42-1,R42-2,R42-3,R41,R41-1,R41-2,R41-3			PCS	8.0000 1 0.00 %	2003/07/16 N
0019-----	RD00125 SMD fixed resistor 1/10W 1.0M ±5% 0603 R19,R19-1,R19-2,R19-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0020-----	CI00051 SMD ceramic capacitor 0603 22PF/50V NPO ±5% C5,C5-1,C5-2,C5-3,C6,C6-1,C6-2,C6-3,C9,C9-1,C9-3,C9-2			PCS	12.0000 1 0.00 %	2003/06/26 N
0021-----	CI00063 SMD ceramic capacitor 0603 470PF/50V NPO ±5 % C23,C23-1,C23-2,C23-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0022-----	CI00075 SMD ceramic capacitor 0603 0.1uF/50V Y5V +80,-20% C14,C14-1,C14-2,C14-3,C15,C15-2,C16,C16-2,C17,C17-1, C17-2,C17-3,C18,C18-1,C18-2,C18-3,C19,C19-1,C19-2, C19-3,C20,C20-1,C20-2,C20-3			PCS	24.0000 1 0.00 %	2003/06/26 N
0023-----	SG00005 SMD integrated circuit BA10393F U4,U4-1,U4-2,U4-3			PCS	4.0000 1 0.00 %	2003/06/26 N

Multi-Level BOM Structure Listing

Report No.: IEBO_P02
Prepared by JG020028[王聖堡]
Item No. PF00271
DESCRIPTION: L-12
L-12_ALTO_230V

Version

UNIT: PCS
Date: 2003/06/26

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0024-----	SE00011 SMD rectifier diode RLS4148 0.5A (LL-34) D2,D2-1,D2-2,D2-3,D3,D3-1,D3-2,D3-3,D4,D4-1,D4-2,D4-3			PCS	12.0000 1 0.00 %	2003/06/26 N
0025-----	SG00122 SMD integrated circuit NJM4580M-TE3 U1,U1-1,U1-2,U1-3,U2,U2-1,U2-2,U2-3,U3,U3-2			PCS	10.0000 1 0.00 %	2003/06/26 N
0026-----	SF00038 SMD field effect transistor RK7002(ROHM) TR2,TR2-1,TR2-2,TR2-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0027-----	SE00028 diode BAS316,115 D1,D1-1,D1-2,D1-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0028-----	SF00004 SMD transistor 2SA1036K(R)(MMBT3906LT1) TR1,TR1-1,TR1-2,TR1-3			PCS	4.0000 1 0.00 %	2003/06/26 N
0077-----	HK04012 PC board P-L12MN1-DIP			PCS	1.0000 1 0.00 %	2003/06/26 N
0001-----	CF00070 metal-film capacitor FKP 0.0015uF/63V 2.5% (PFR5 152H63J11L4) C440,C441,C442			PCS	3.0000 1 0.00 %	2003/06/26 N
0002-----	RC00285 potentiometer D10K RF60112P600G-10KD*2(AA) VR5,VR16,VR38,VR39,VR56			PCS	5.0000 1 0.00 %	2003/07/16 N
0003-----	RC00284 potentiometer D10K RF6011YP600F-10KD(AA) VR53,VR54,VR55,VR66			PCS	4.0000 1 0.00 %	2003/07/16 N
0004-----	CB00024 electrolytic capacitor 10uF/16V 4*7 C443,C444			PCS	2.0000 1 0.00 %	2003/06/26 N
0005-----	RA00185 fixed resistor 1/4W 120 M type R597,R598			PCS	2.0000 1 0.00 %	2003/06/26 N
0006-----	CF00054 metal-film capacitor MSC 0.012uF/63V ±5% CASE01 C13,C14,C15,C16,C17,C18,C19,C20,C76,C77,C85,C86,C107, C108,C115,C116			PCS	16.0000 1 0.00 %	2003/06/26 N
0007-----	CF00001 metal-film capacitor MSC 0.001uF/63V 5% CASE01 C21,C22,C23,C24,C75,C84,106,C114			PCS	8.0000 1 0.00 %	2003/06/26 N
0008-----	CF00038 metal-film capacitor MSC 0.22uF/63V 5% CASE02			PCS	12.0000 1 0.00 %	2003/07/03 N

Multi-Level BOM Structure Listing

Report No.: IEBO_P02
Prepared by JG020028[王聖堡]

Date 2003/10/01
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Item No. PF00271 Version
DESCRIPTION: L-12 UNIT: PCS
L-12_ALTO_230V Date: 2003/06/26

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate @:Phantom Layer	Attrition Rate
	C295,C296,C303,C304,C305,C306,C313,C314,C321,C322,C323,C324					
0009-----	CB00009 electrolytic capacitor 1uF/50V 4*7 C423,C424,C454,C455,C458,C460,C461,C463,C464,C457			PCS	10.0000 1 0.00 %	2003/06/26 N
0010-----	CB00011 electrolytic capacitor 2.2uF/50V 5*11 C380			PCS	1.0000 1 0.00 %	2003/06/26 N
0011-----	CF00022 metal-film capacitor MSC 0.022uF/100V 5% CASE01 C291,C292,C293,C294,C301,C302,C309,C310,C311,C312,C319,C320			PCS	12.0000 1 0.00 %	2003/06/26 N
0012-----	CF00005 metal-film capacitor MSC 0.0022uF/63V 5% CASE01 C289,C290,C297,C298,C299,C300,C307,C308,C315,C316,C317,C318			PCS	12.0000 1 0.00 %	2003/06/26 N
0013-----	CF00006 metal-film capacitor MSC 0.0033uF/100V 5% CASE01 C33,C34,C35,C36,C37,C38,C39,C40,C79,C80,C88,C89,C110,C111,C118,C119			PCS	16.0000 1 0.00 %	2003/06/26 N
0014-----	CB00018 electrolytic capacitor 4.7uF/25V 4*7 C436,C438,C439			PCS	3.0000 1 0.00 %	2003/06/26 N
0015-----	RA00174 fixed resistor 1/4W 47 M type R745,R746			PCS	2.0000 1 0.00 %	2003/06/26 N
0016-----	CF00025 metal-film capacitor MSC 0.047uF/63V 5% CASE01 C41,C42,C43,C44,C81,C90,C112,C120			PCS	8.0000 1 0.00 %	2003/06/26 N
0017-----	CB00175 electrolytic capacitor 47uF/25V SLL 5*11 C1,C2,C3,C4,C5,C6,C7,C8,C9,C10,C11,C12,C67,C68,C69,C70,C73,C74,C83,C92,C96,C97,C98,C99,C100,C101,C104,C105,C122,C123,C127,C128,C153,C154,C155,C156,C161,C162,C164,C163,C176,C179,C180,C184,C187,C188,C191,C192,C195,C196,C199,C200,C203,C204,C207,C211,C212,C215,C216,C219,C220,C239,C240,C243,C244,C247,C248,C252,C255,C256,C259,C260,C265,C266,C267,C268,C285,C286,C376,C377,C378,C383,C393,C384,C395,C396,C401,C417,C418,C419,C466,C467,C470,C471,C474,C475,C491,C492,C493,C494,C495,C496,C497,C498,C500,C501,C502,C503,C504,C505,C506,C507,C479,C175,C287,C288,C480,C486,C487,C397,C398,C183,C208,C251,C394,C420,C402			PCS	127.0000 1 0.00 %	2003/06/26 N
0018-----	RC00315 potentiometer W100K RA3022-202-15DA-W100K-C VR57,VR58,VR59,VR60,VR61,VR62,VR63,VR64,VR65			PCS	9.0000 1 0.00 %	2003/06/26 N

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Item No. PF00271
DESCRIPTION: L-12
L-12_ALTO_230V

Version

UNIT: PCS
Date: 2003/06/26

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition Rate	
0019-----	HI00162 push-button switch 2 paragraphs 6p PS-22E8552L SW2, SW5, SW6, SW7, SW9, SW12, SW13, SW14, SW15, SW16, SW21, SW22, SW24, SW25, SW26, SW32, SW33, SW34, SW35, SW36, SW37, SW38, SW39, SW43, SW44, SW45, SW46, SW48, SW49, SW50, SW51, SW1, SW8, SW23, SW40, SW41			PCS	36.0000 1 0.00 %	2003/06/26 N
0020-----	HI00177 push-button switch 2段 6P PS-22E8552N(3.3*3.3)NO LOCK SW47			PCS	1.0000 1 0.00 %	2003/06/26 N
0021-----	HI00163 push-button switch 2 stage 12P PS-42E85 SW4, SW11, SW19, SW20, SW27, SW28, SW29, SW30, SW31, SW42, SW3, SW10, SW17, SW18			PCS	14.0000 1 0.00 %	2003/06/26 N
0022-----	HI00161 relay RY-5W-K,5V RL1			PCS	1.0000 1 0.00 %	2003/06/26 N
0023-----	HI00195 switch SDB161PVB15.5F-1-4-16-16PC EN1, EN2			PCS	2.0000 1 0.00 %	2003/06/26 N
0024-----	RC00236 potentiometer B50K RV112BC-40-30A-B50K-OC VR1, VR2, VR3, VR4, VR12, VR13, VR14, VR15, VR24, VR25, VR26, VR27, VR41, VR42, VR43, VR40			PCS	16.0000 1 0.00 %	2003/07/03 N
0025-----	RC00235 potentiometer W50K RV09BC-40-30F-W50K-OC VR6, VR7, VR8, VR9, VR10, VR17, VR18, VR19, VR20, VR21, VR28, VR29, VR31, VR32, VR33, VR34, VR35, VR36, VR37, VR48, VR49, VR50, VR51, VR71, VR72, VR30, VR69, VR70			PCS	28.0000 1 0.00 %	2003/07/03 N
0026-----	RC00237 potentiometer W50K RV112BC-40-30A-W50K-OC VR23, VR44, VR45, VR46, VR47, VR52, VR67, VR68, VR73			PCS	9.0000 1 0.00 %	2003/07/03 N
0027-----	RC00296 potentiometer 010K RV09BC-40-30F-02C10K VR11, VR22			PCS	2.0000 1 0.00 %	2003/06/26 N
0028-----	SA00051 L.E.D 3 orange,green BOG303b LD39, LD40, LD41, LD42			PCS	4.0000 1 0.00 %	2003/06/26 N
0029-----	NI02588 led LED3*11 11mm			PCS	4.0000 1 0.00 %	2003/06/26 N
0030-----	SA00053 L.E.D high intensity 3m/m round(red)long foot 26mm LD3, LD4, LD7, LD8, LD9, LD11, LD23, LD35, LD37, LD38			PCS	10.0000 1 0.00 %	2003/07/25 N

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Version

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Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0031-----	SA00054 L.E.D high intensity 3m/m round(yellow)long foot 26 LD1,LD2,LD5,LD6,LD22,LD34			PCS	6.0000 1 0.00 %	2003/06/26 N
0032-----	SA00052 L.E.D high intensity 3m/m round(green)long foot 26 LD12,LD13,LD14,LD15,LD16,LD17,LD18,LD19,LD20,LD21, LD24,LD25,LD26,LD27,LD28,LD29,LD30,LD31,LD32,LD33, LD36,LD10			PCS	22.0000 1 0.00 %	2003/07/25 N
0033-----	NI01782 LED spacer support LEDS-11 11mm			PCS	38.0000 1 0.00 %	2003/06/26 N
0034-----	HC00499 row pin 2.54mm 180°2*8P CN6			PCS	1.0000 1 0.00 %	2003/07/16 N
0035-----	HC00072 row-wire header 8P 2.5mm 90° CN1			PCS	1.0000 1 0.00 %	2003/06/26 N
0036-----	HC00321 wire 14P 2.0mm 180° CN4			PCS	1.0000 1 0.00 %	2003/06/26 N
0037-----	HC00524 row-wireheader pitch 15P 2.0mm 180° CN5			PCS	1.0000 1 0.00 %	2003/06/26 N
0038-----	HC00525 row-wireheader pitch 18P 2.0mm 180° CN2,CN3			PCS	2.0000 1 0.00 %	2003/06/26 N
0039-----	HC00154 row-pin(double)#2200 2.54 180° 2*10P(gold-plated) 6/11.6mm CN7			PCS	1.0000 1 0.00 %	2003/07/16 N
0040-----	HK04013 PC board P-L12MN1-SMD			PCS	1.0000 1 0.00 %	2003/06/26 N
0001-----	HB00960 pc board L12MN1_VER030718			PCS	1.0000 1 0.00 %	2003/06/26 N
0002-----	RD00441 SMD precise resistor 1/10W 787 ±1% 0603 R488,R524			PCS	2.0000 1 0.00 %	2003/06/26 N
0003-----	RD00442 SMD precise resistor 1/10W 976 ±1% 0603 R464,R500			PCS	2.0000 1 0.00 %	2003/06/26 N
0004-----	RD00405 SMD precise resistor 1/10W 1.18K ±1% 0603 R476,R512			PCS	2.0000 1 0.00 %	2003/06/26 N

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Version	Item No	Loss %	Ver.	Unit	Cardinal Usage Rate	Effective Date @:Phantom Layer Attrition Rate
Component Remark	Item Descri					
0005-----	RD00443 SMD precise resistor 1/10W 1.54K ±1% 0603 R472,R508			PCS	2.0000 1 0.00	2003/06/26 N %
0006-----	RD00444 SMD precise resistor 1/10W 1.96K ±1% 0603 R484,R520			PCS	2.0000 1 0.00	2003/06/26 N %
0007-----	RD00445 SMD precise resistor 1/10W 2.43K ±1% 0603 R460,R496			PCS	2.0000 1 0.00	2003/06/26 N %
0008-----	RD00385 SMD precise resistor 1/10W 3.01K ±1% 0603 R492,R528			PCS	2.0000 1 0.00	2003/07/25 N %
0009-----	RD00207 SMD precise resistor 1/10W 3.92K ±1% 0603 R468,R504			PCS	2.0000 1 0.00	2003/06/26 N %
0010-----	RD00386 SMD precise resistor 1/10W 4.75K ±1% 0603 R480,R516			PCS	2.0000 1 0.00	2003/06/26 N %
0011-----	RD00300 SMD precise resistor 1/10W 6.04K ±1% 0603 R487,R523			PCS	2.0000 1 0.00	2003/06/26 N %
0012-----	RD00446 SMD precise resistor 1/10W 9.76K ±1% 0603 R475,R511			PCS	2.0000 1 0.00	2003/06/26 N %
0013-----	RD00301 SMD precise resistor 1/10W 12.1K ±1% 0603 R471,R486,R507,R522			PCS	4.0000 1 0.00	2003/06/26 N %
0014-----	RD00420 SMD precise resistor 1/10W 19.1K ±1% 0602 R459,R495			PCS	2.0000 1 0.00	2003/06/26 N %
0015-----	RD00447 SMD precise resistor 1/10W 19.6K ±1% 0603 R474,R510			PCS	2.0000 1 0.00	2003/06/26 N %
0016-----	RD00448 SMD precise resistor 1/10W 24.3K ±1% 0603 R470,R491,R506,R527			PCS	4.0000 1 0.00	2003/06/26 N %
0017-----	RD00266 SMD precise resistor 1/10W 30.1K ±1% 0603 R467,R482,R503,R518			PCS	4.0000 1 0.00	2003/06/26 N %

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0018-----	RD00449 SMD precise resistor 1/10W 38.3K ±1% 0603 R458,R479,R494,R515			PCS	4.0000 1 0.00 %	2003/06/26 N
0019-----	RD00450 SMD precise resistor 1/10W 48.7K ±1% 0603 R490,R526			PCS	2.0000 1 0.00 %	2003/06/26 N
0020-----	RD00223 SMD precise resistor 1/10W 49.9K ±1% 0603 R432,R433,R440,R441,R448,R449			PCS	6.0000 1 0.00 %	2003/06/26 N
0021-----	RD00264 SMD precise resistor 1/10W 60.4K ±1% 0603 R466,R502			PCS	2.0000 1 0.00 %	2003/06/26 N
0022-----	RD00451 SMD precise resistor 1/10W 76.8K ±1% 0603 R478,R514			PCS	2.0000 1 0.00 %	2003/06/26 N
0023-----	RD00065 SMD fixed resistor 1/10W 47 ±5% 0603 R592,R593			PCS	2.0000 1 0.00 %	2003/06/26 N
0024-----	RD00346 SMD fixed resistor 1/10W 56 ±5% 0603 R599			PCS	1.0000 1 0.00 %	2003/06/26 N
0025-----	RD00066 SMD fixed resistor 1/10W 68 ±5% 0603 R624,R625			PCS	2.0000 1 0.00 %	2003/06/26 N
0026-----	RD00069 SMD fixed resistor 1/10W 120 ±5% 0603 R600,R657,R658,R659,R660,R661,R662,R663,R664			PCS	9.0000 1 0.00 %	2003/06/26 N
0027-----	RD00073 SMD fixed resistor 1/10W 220 ±5% 0603 R646,R647,R650			PCS	3.0000 1 0.00 %	2003/06/26 N
0028-----	RD00076 SMD fixed resistor 1/10W 330 ±5% 0603 R602,R604			PCS	2.0000 1 0.00 %	2003/06/26 N
0029-----	RD00078 SMD fixed resistor 1/10W 470 ±5% 0603 R601,R603,R605			PCS	3.0000 1 0.00 %	2003/06/26 N
0030-----	RD00347 SMD fixed resistor 1/10W 510 ±5% 0603 R257,R258,R259,R260,R386,R393,R400,R407,R595,R596, R606,R622,R623			PCS	13.0000 1 0.00 %	2003/06/26 N

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0031-----	RD00348 SMD fixed resistor 1/10W 620 ±5% 0603 R607			PCS	1.0000 1 0.00 %	2003/06/26 N
0032-----	RD00083 SMD fixed resistor 1/10W 1.0K ±5% 0603 R125,R126,R127,R128,R654,R685,R696,R707,R718			PCS	9.0000 1 0.00 %	2003/06/26 N
0033-----	RD00084 SMD fixed resistor 1/10W 1.2K ±5% 0603 R129,R130,R131,R132			PCS	4.0000 1 0.00 %	2003/06/26 N
0034-----	RD00351 SMD fixed resistor 1/10W 1.3K ±5% 0603 R608			PCS	1.0000 1 0.00 %	2003/06/26 N
0035-----	RD00086 SMD fixed resistor 1/10W 1.8K ±5% 0603 R5,R6,R7,R8,R9,R10,R11,R12,R13,R14,R15,R16,R17,R18, R19,R20,R137,R138,R139,R140,R141,R142,R143,R144,R145, R146,R147,R148,R149,R150,R151,R152			PCS	32.0000 1 0.00 %	2003/06/26 N
0036-----	RD00087 SMD fixed resistor 1/10W 2.0K ±5% 0603 R582,R609			PCS	2.0000 1 0.00 %	2003/06/26 N
0037-----	RD00088 SMD fixed resistor 1/10W 2.2K ±5% 0603 R67,R68,R233,R234,R375,R635			PCS	6.0000 1 0.00 %	2003/06/26 N
0038-----	RD00091 SMD fixed resistor 1/10W 3.3K ±5% 0603 R69,R70,R199,R200,R626,R627			PCS	6.0000 1 0.00 %	2003/06/26 N
0039-----	RD00352 SMD fixed resistor 1/10W 3.6K ±5% 0603 R329,R330,R335,R336,R338,R339			PCS	6.0000 1 0.00 %	2003/08/14 N
0040-----	RD00093 SMD fixed resistor 1/10W 4.7K ±5% 0603 R210,R211,R212,R213,R217,R218,R219,R224,R583,R648, R683,R694,R716,R719,R720,R721,R722,R723,R724,R725, R726,R353,R357,R365,R366,R705			PCS	26.0000 1 0.00 %	2003/06/26 N
0041-----	RD00094 SMD fixed resistor 1/10W 5.1K ±5% 0603 R79,R80,R81,R82,R83,R85,R88,R89,R90,R94,R154,R159, R162,R163,R201,R202,R209,R214,R71,R72,R388,R395,R402, R409,R414,R415,R418,R419,R422,R542,R543,R554,R555, R751,R752,R753,R754,R295,R296,R303,R304,R305,R312, R314,R315,R318,R323,R325,R326,R327,R328,R331,R332, R334,R333,R337,R341,R423			PCS	58.0000 1 0.00 %	2003/07/25 N
0042-----	RD00095 SMD fixed resistor 1/10W 5.6K ±5% 0603			PCS	5.0000 1 0.00 %	2003/07/25 N

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DESCRIPTION: L-12
L-12_ALTO_230V

Version

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate @:Phantom Layer	Attrition Rate
	R566,R570,R574,R578,R610					
0043-----	RD00096				6.0000	2003/07/25
	SMD fixed resistor 1/10W			PCS	1	N
	6.2K ±5% 0603				0.00	%
	R269,R271,R273,R275,R616,R617					
0044-----	RD00097				16.0000	2003/07/25
	SMD fixed resistor 1/10W			PCS	1	N
	6.8K ±5% 0603				0.00	%
	R43,R44,R46,R45,R47,R48,R49,R50,R175,R176,R177,R178, R179,R180,R181,R182					
0045-----	RD00098				3.0000	2003/07/25
	SMD fixed resistor 1/10W			PCS	1	N
	7.5K ±5% 0603				0.00	%
	R463,R499,R651					
0046-----	RD00099				19.0000	2003/07/25
	SMD fixed resistor 1/10W			PCS	1	N
	8.2K ±5% 0603				0.00	%
	R22,R23,R30,R31,R611,R678,R689,R700,R712,R747,R748, R749,R750,R281,R284,R288,R291,R26,R34					
0047-----	RD00101				152.0000	2003/08/14
	SMD fixed resistor 1/10W			PCS	1	N
	10K ±5% 0603				0.00	%
	R21,R24,R25,R27,R28,R29,R32,R33,R153,R155,R156,R158, R160,R161,R164,R165,R203,R204,R215,R270,R272,R274, R276,R293,R294,R299,R300,R301,R302,R309,R316,R317, R382,R383,R390,R397,R411,R424,R425,R426,R427,R430, R431,R434,R435,R436,R437,R438,R442,R443,R444,R445, R446,R447,R450,R451,R452,R453,R454,R455,R456,R457, R461,R465,R469,R473,R477,R481,R485,R489,R493,R497, R501,R509,R513,R517,R521,R525,R529,R530,R540,R549, R553,R569,R577,R581,R588,R591,R594,R628,R629,R630, R631,R632,R633,R634,R637,R638,R640,R641,R642,R643, R644,R645,R655,R656,R680,R681,R691,R692,R693,R702, R703,R704,R713,R714,R715,R729,R730,R731,R741,R742, R743,R744,R439,R505,R541,R573,R636,R682,R732,R310, R311,R321,R376,R377,R216,R404,R157,R166,R205,R206, R207,R208,R220,R221,R222,R223,R677,R688,R340,R342					
0048-----	RD00102				36.0000	2003/07/25
	SMD fixed resistor 1/10W			PCS	1	N
	12K ±5% 0603				0.00	%
	R59,R60,R61,R62,R73,R74,R75,R76,R77,R78,R84,R86,R87, R91,R92,R93,R95,R96,R97,R98,R191,R192,R193,R194,R225, R226,R227,R228,R546,R547,R548,R550,R551,R552,R556,R557					
0049-----	RD00103				30.0000	2003/07/25
	SMD fixed resistor 1/10W			PCS	1	N
	15K ±5% 0603				0.00	%
	R462,R483,R498,R519,R537,R539,R665,R666,R667,R668, R669,R670,R671,R672,R727,R728,R733,R734,R735,R736, R737,R738,R740,R739,R229,R230,R231,R232,R313,R322					
0050-----	RD00104				8.0000	2003/07/25
	SMD fixed resistor 1/10W			PCS	1	N
	18K ±5% 0603				0.00	%
	R389,R396,R403,R410,R416,R417,R384,R385					
0051-----	RD00306				46.0000	2003/07/25
	SMD fixed resistor 1/10W			PCS	1	N
	20K ±5% 0603				0.00	%
	R351,R352,R354,R355,R356,R358,R359,R360,R361,R362, R363,R364,R378,R379,R387,R391,R392,R394,R398,R399,					

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Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition Rate	
	R401,R405,R406,R408,R412,R413,R428,R429,R533,R534, R535,R544,R560,R561,R568,R572,R576,R580,R673,R674,R99, R100,R101,R102,R699,R710					
0052-----	RD00105 SMD fixed resistor 1/10W 22K ±5% 0603			PCS	14.0000 1 0.00 %	2003/07/31 N
	R35,R36,R37,R38,R167,R168,R380,R381,R420,R421,R170, R169,R348,R350					
0053-----	RD00106 SMD fixed resistor 1/10W 27K ±5% 0603			PCS	18.0000 1 0.00 %	2003/07/25 N
	R367,R368,R369,R370,R371,R374,R695,R706,R717,R684, R282,R283,R285,R286,R287,R289,R290,R292					
0054-----	RD00107 SMD fixed resistor 1/10W 30K ±5% 0603			PCS	4.0000 1 0.00 %	2003/07/25 N
	R531,R532,R372,R373					
0055-----	RD00353 SMD fixed resistor 1/10W 36K ±5% 0603			PCS	22.0000 1 0.00 %	2003/07/31 N
	R261,R262,R263,R264,R265,R266,R267,R268,R584,R585, R613,R614,R615,R620,R621,R343,R344,R345,R346,R347, R349,R612					
0056-----	RD00111 SMD fixed resistor 1/10W 47K ±5% 0603			PCS	11.0000 1 0.00 %	2003/06/26 N
	R63,R64,R65,R66,R195,R196,R197,R198,R563,R565,R639					
0057-----	RD00112 SMD fixed resistor 1/10W 56K ±5% 0603			PCS	6.0000 1 0.00 %	2003/07/25 N
	R297,R298,R306,R307,R308,R320					
0058-----	RD00113 SMD fixed resistor 1/10W 62K ±5% 0603			PCS	2.0000 1 0.00 %	2003/06/26 N
	R558,R559					
0059-----	RD00116 SMD fixed resistor 1/10W 100K ±5% 0603			PCS	16.0000 1 0.00 %	2003/07/25 N
	R536,R545,R562,R564,R586,R589,R676,R687,R698,R709, R319,R324,R675,R686,R697,R708					
0060-----	RD00119 SMD fixed resistor 1/10W 220K ±5% 0603			PCS	17.0000 1 0.00 %	2003/06/26 N
	R39,R40,R41,R42,R171,R172,R173,R174,R1,R2,R3,R4,R133, R134,R135,R136,R538					
0061-----	RD00124 SMD fixed resistor 1/10W 820K ±5% 0603			PCS	1.0000 1 0.00 %	2003/06/26 N
	R649					
0062-----	RD00125 SMD fixed resistor 1/10W 1.0M ±5% 0603			PCS	17.0000 1 0.00 %	2003/06/26 N
	R51,R52,R53,R54,R55,R56,R57,R58,R183,R184,R185,R186, R187,R188,R189,R190,R652					

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Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0063-----	RD00126 SMD fixed resistor 1/10W 2.2M ±5% 0603 R653			PCS	1.0000 1 0.00	2003/06/26 N %
0064-----	RE00011 resistor 680 *4 ±5% 8P 0603 AR1,AR2			PCS	2.0000 1 0.00	2003/06/26 N %
0065-----	CI00059 SMD ceramic capacitor 0603 100PF/50V NPO ±5% C173,C174,C185,C186,C197,C198,C209,C210,C237,C238			PCS	10.0000 1 0.00	2003/06/26 N %
0066-----	CI00075 SMD ceramic capacitor 0603 0.1uF/50V Y5V +80,-20% C379,C421,C425,C426,C427,C428,C429,C430,C431,C437, C446,C447,C448,C449,C450,C451,C452,C453,C49,C50,C51, C52,C53,C54,C55,C56,C57,C58,C61,C62,C63,C64,C65,C66, C131,C132,C133,C134,C135,C136,C137,C138,C139,C140, C141,C142,C143,C144,C145,C146,C165,C166,C167,C168, C169,C170,C171,C172,C221,C222,C223,C224,C225,C226, C227,C228,C229,C230,C231,C232,C233,C234,C235,C236, C325,C326,C327,C328,C329,C330,C331,C332,C333,C334, C335,C336,C337,C338,C339,C340,C341,C342,C343,C344, C345,C346,C347,C348,C349,C350,C351,C352,C353,C354, C355,C356,C357,C358,C359,C360,C361,C362,C363,C364, C365,C366,C367,C368,C369,C370,C371,C372,C399,C400, C403,C404,C405,C406,C407,C408,C409,C410,C411,C412, C476,C477,C481,C482,C483,C484,C485,C478			PCS	142.0000 1 0.00	2003/06/26 N %
0067-----	CI00051 SMD ceramic capacitor 0603 22PF/50V NPO ±5% C25,C26,C27,C28,C29,C30,C31,C32,C45,C46,C47,C48,C71, C72,C78,C82,C87,C91,C94,C95,C102,C103,C109,C113,C117, C121,C125,C126,C149,C150,C151,C152,C157,C158,C159, C160,C178,C181,C182,C189,C193,C194,C201,C205,C206, C213,C214,C217,C218,C241,C242,C246,C249,C250,C253, C254,C257,C258,C261,C262,C263,C264,C269,C270,C271, C272,C273,C274,C275,C276,C277,C278,C279,C280,C281, C282,C283,C284,C373,C374,C375,C381,C382,C385,C386, C387,C388,C413,C414,C415,C416,C432,C433,C434,C435, C468,C469,C472,C473,C177,C190,C245,C202			PCS	103.0000 1 0.00	2003/06/26 N %
0068-----	CI00053 SMD ceramic capacitor 0603 33PF/50V NPO ±5% C422,C445			PCS	2.0000 1 0.00	2003/06/26 N %
0069-----	CI00063 SMD ceramic capacitor 0603 470PF/50V NPO ±5 % C456,C459,C462,C465			PCS	4.0000 1 0.00	2003/06/26 N %
0070-----	SF00038 SMD field effect transistor RK7002(ROHM) TR1,TR3,TR5,TR9			PCS	4.0000 1 0.00	2003/06/26 N %
0071-----	SG00164 integrated circuit 74HC109D U76			PCS	1.0000 1 0.00	2003/06/26 N %

Multi-Level BOM Structure Listing

Report No.: IEBO_P02
 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

Date 2003/10/01
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Version	Item No Item Descri	Loss %	Ver.	Unit	Cardinal Usage Rate Attrition	Effective Date @:Phantom Layer Rate
0072-----	SG00068 SMD integrated circuit 74HC14DT U77			PCS	1.0000 1 0.00	2003/06/26 N %
0073-----	SE00028 diode BAS316,115 D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13,D14,D15, D17,D18,D19,D20,D23,D25,D26,D27,D28,D29			PCS	25.0000 1 0.00	2003/06/26 N %
0074-----	SF00010 SMD transistor 2SC2412K(R)(MMBT3904LT1) TR20,TR21			PCS	2.0000 1 0.00	2003/06/26 N %
0075-----	SE00009 SMD rectifier diode DAN202K/T-146 D24			PCS	1.0000 1 0.00	2003/06/26 N %
0076-----	SF00004 SMD transistor 2SA1036K(R)(MMBT3906LT1) TR2,TR4,TR6,TR8,TR13,TR14			PCS	6.0000 1 0.00	2003/06/26 N %
0077-----	SF00039 SMD field effect transistor MMBFJ112/PMBFJ112(SOT-23) TR15,TR16,TR17,TR18,TR19			PCS	5.0000 1 0.00	2003/06/26 N %
0078-----	SG00032 SMD integrated circuit LM339DR/(T1) U62,U63,U64,U65,U66,U67			PCS	6.0000 1 0.00	2003/06/26 N %
0079-----	SG00005 SMD integrated circuit BA10393F U75,U5,U9,U18,U19			PCS	5.0000 1 0.00	2003/06/26 N %
0080-----	SG00094 SMD integrated circuit NE555DT U71			PCS	1.0000 1 0.00	2003/06/26 N %
0081-----	SE00007 SMD rectifier diode RB400D(D3A) D22			PCS	1.0000 1 0.00	2003/06/26 N %
0082-----	SG00122 SMD integrated circuit NJM4580M-TE3 U1,U2,U3,U4,U6,U7,U10,U8,U11,U12,U13,U14,U15,U16,U17, U20,U21,U22,U23,U24,U25,U26,U27,U28,U29,U30,U31,U32, U33,U34,U35,U36,U37,U38,U39,U40,U41,U42,U43,U44,U45, U46,U47,U48,U49,U50,U51,U52,U53,U54,U55,U56,U57,U58, U59,U60,U61,U68,U69,U70,U72,U73,U74,U78,U79			PCS	65.0000 1 0.00	2003/06/26 N %
0083-----	SE00011 SMD rectifier diode RLS4148 0.5A (LL-34) D21,D30,D31,D32,D33			PCS	5.0000 1 0.00	2003/06/26 N %

Multi-Level BOM Structure Listing

Report No.: IEB0_P02
 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

UNIT: PCS
 Date: 2003/06/26

Date 2003/10/01
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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0084-----	SE00008 SMD rectifier diode DA204K/T-146 D16			PCS	1.0000 1 0.00	2003/06/26 N %
0085-----	RD00067 SMD fixed resistor 1/10W 82 ±5% 0603 R679,R690			PCS	2.0000 1 0.00	2003/07/26 N %
0086-----	RD00070 SMD fixed resistor 1/10W 150 ±5% 0603 R701,R711			PCS	2.0000 1 0.00	2003/07/26 N %
0078-----	HK04029 PC board P-L12PWR			PCS	1.0000 1 0.00	2003/06/26 N %
0001-----	HB00974 pc board L12PWR(1*2)_VRE030724			PCS	1.0000 1 0.00	2003/06/26 N %
0002-----	RA00159 fixed resistor 1/4W 10 Mr type R3			PCS	1.0000 1 0.00	2003/06/26 N %
0003-----	RA00185 fixed resistor 1/4W 120 M type R10,R11			PCS	2.0000 1 0.00	2003/06/26 N %
0004-----	RA00217 fixed resistor 1/4W 1.5K M type R5			PCS	1.0000 1 0.00	2003/06/26 N %
0005-----	RA00224 fixed resistor 1/4W 2.7K M type R6,R7,R8,R9			PCS	4.0000 1 0.00	2003/06/26 N %
0006-----	RA00242 fixed resistor 1/4W 10K M type R2			PCS	1.0000 1 0.00	2003/06/26 N %
0007-----	RA00250 fixed resistor 1/4W 20K M type R4			PCS	1.0000 1 0.00	2003/06/26 N %
0008-----	RA00301 fixed resistor 1/4W 390K M type R1			PCS	1.0000 1 0.00	2003/06/26 N %
0009-----	CB00112 electrolytic capacitor 10uF/35V 105 4*7 C15,C16			PCS	2.0000 1 0.00	2003/07/03 N %
0010-----	CB00043 electrolytic capacitor 47uF/100V 10*12 C8,C9			PCS	2.0000 1 0.00	2003/06/26 N %

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Report No.: IEBO_P02
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 Item No. PF00271
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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition Rate	
0011-----	CB00061 electrolytic capacitor 220uF/100V 12*25 C7			PCS	1.0000 1 0.00 %	2003/06/26 N
0012-----	CB00052 electrolytic capacitor 100uF/100V 13*20 C5,C6			PCS	2.0000 1 0.00 %	2003/06/26 N
0013-----	CB00047 electrolytic capacitor 100uF/25V 6*11 C3,C4			PCS	2.0000 1 0.00 %	2003/06/26 N
0014-----	CB00070 electrolytic capacitor 1000uF/16V 10*16 C10			PCS	1.0000 1 0.00 %	2003/06/26 N
0015-----	CB00072 electrolytic capacitor 1000uF/25V 10*20 C13			PCS	1.0000 1 0.00 %	2003/06/26 N
0016-----	CB00083 electrolytic capacitor 3300uF/35V 18*31 C1,C2,C11,C12			PCS	4.0000 1 0.00 %	2003/06/26 N
0017-----	SA00094 rectifier diode 1N4002/100V D1,D2,D3,D4,D5,D6,D7,D8,D9,D10			PCS	10.0000 1 0.00 %	2003/07/25 N
0018-----	SA00127 zener diode 1/2W 47V 1N5261 ZD1			PCS	1.0000 1 0.00 %	2003/06/26 N
0019-----	HC00082 row-wire header 8P 2.5mm 180° CN3			PCS	1.0000 1 0.00 %	2003/06/26 N
0020-----	HC00076 row-wire header 2P 2.5mm 180° CN2,CN4,CN5			PCS	3.0000 1 0.00 %	2003/06/26 N
0021-----	SA00005 bridge rectifier 4A/400V RS405 BD1			PCS	1.0000 1 0.00 %	2003/06/26 N
0022-----	HC00168 row-wireheader 7P 3.96mm 90° CN1			PCS	1.0000 1 0.00 %	2003/08/14 N
0023-----	HA01925 jumper wire 10mm J1,J2,J10,J11,J12,J13			PCS	6.0000 1 0.00 %	2003/06/26 N

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0001-----	HA02249 wire 0.6			M KG	0.0200 1	2002/09/19 N
0024-----	HA01928 jumper wire 12mm			PCS	5.0000 1	2003/06/26 N
	J3,J4,J6,J7,J9				0.00	%
0001-----	HA02249 wire 0.6			M KG	0.0220 1	2002/09/19 N
0025-----	HA01922 jumper wire 8mm			PCS	2.0000 1	2003/06/26 N
	J5,J8				0.00	%
0001-----	HA02249 wire 0.6			M KG	0.0180 1	2002/09/19 N
0026-----	SD00032 integrated circuit LM317T			PCS	1.0000 1	2003/06/26 N
	TR1				0.00	%
0027-----	SD00033 integrated circuit LM337SP(1.5A)(T0-220)			PCS	1.0000 1	2003/06/26 N
	TR2				0.00	%
0028-----	SD00074 integrated circuit 7805(T0-220)			PCS	1.0000 1	2003/06/26 N
	TR4				0.00	%
0029-----	SB00043 transistor TIP122(ST)			PCS	1.0000 1	2003/06/26 N
	TR3				0.00	%
0030-----	HD00012 fuse 500mA 250V 5.2*20mm CSA/S/UL/VDE			PCS	1.0000 1	2003/06/26 N
	FUSE1				0.00	%
0031-----	HC00063 FUSE holder PCB type JEF-501 (5.2mm)			PCS	2.0000 1	2003/06/26 N
0079-----	HK04001 PC board P-L12LED			PCS	1.0000 1	2003/06/26 N
0001-----	HB00975 pc board L12LED(1*30)_VRE030530			PCS	1.0000 1	2003/06/26 N
0002-----	SE00004 SMD L.E.D yellow 67-21UYC/S530-A2/TR8 1210			PCS	5.0000 1	2003/06/26 N
	LED1,LED2,LED3,LED4,LED5				0.00	%
0003-----	HA01531 header wiring 2P 250			PCS	1.0000 1	2003/06/26 N
0080-----	HK01524 K-PC board P-313123-DIP(L-12)			PCS	1.0000 1	2003/06/26 N
0001-----	SC00004 quartz crystalloid 16.00MHZ LP-3.5S(HC-49US)			PCS	1.0000 1	2003/06/26 N
					0.00	%

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Report No.: IEBO_P02
 Prepared by JG020028[王聖堡]
 Item No. PF00271
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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
	XT1					
0002-----	HC00512 row-pin header(single)#2200 2.54mm 180°2*8P(gold-plated)4/9.5mm CN2			PCS	1.0000 1 0.00	2003/06/26 N %
0003-----	SG00193 integrated ciucire AT27LV010A-90JC/L-8 IC4			PCS	1.0000 1 0.00	2003/06/26 N %
0001-----	SG00139 integrated ciucire AT27LV010A-90JC			PCS	1.0000 1 0.00	2003/05/30 N %
0004-----	HK04041 PC board P-313123-AI(L-8)			PCS	1.0000 1 0.00	2003/06/26 N %
0001-----	CB00165 electrolytic capacitor 10uF/16V 4*5 C7			PCS	1.0000 1 0.00	2003/06/18 N %
0002-----	CB00166 electrolytic capacitor 100uF/16V 6*5mm C19,C12,C5,C24,C21,C25,C26,C28,C2,C16			PCS	10.0000 1 0.00	2003/06/18 N %
0003-----	HK03894 PC board P-313123-SMD(L-8)			PCS	1.0000 1 0.00	2003/06/18 N %
0001-----	HB00895 pc board 313123/2(1*6)			PCS	1.0000 1 0.00	2003/04/29 N %
0002-----	CI00049 SMD ceramic capacitor 0603 15PF/50V NPO ±5% C8,C9			PCS	2.0000 1 0.00	2003/04/29 N %
0003-----	CI00075 SMD ceramic capacitor 0603 0.1uF/50V Y5V +80,-20% C17,C15,C18,C6,C10,C22,C20,C13,C14,C1,C3,C4,C11			PCS	13.0000 1 0.00	2003/04/29 N %
0004-----	RD00061 SMD fixed resistor 1/10W 10 ±5% 0603 R22			PCS	1.0000 1 0.00	2003/04/29 N %
0005-----	RD00068 SMD fixed resistor 1/10W 100 ±5% 0603 R12,R14,R7,R8,R34,R17,R13,R33			PCS	8.0000 1 0.00	2003/04/29 N %
0006-----	RD00073 SMD fixed resistor 1/10W 220 ±5% 0603 R3			PCS	1.0000 1 0.00	2003/04/29 N %
0007-----	RD00085 SMD fixed resistor 1/10W 1.5K ±5% 0603 R16,R15,R21,R20,R4,R19,R10,R18,R9,R5			PCS	10.0000 1 0.00	2003/04/29 N %
0008-----	RD00088 SMD fixed resistor 1/10W 2.2K ±5% 0603			PCS	8.0000 1 0.00	2003/04/29 N %

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 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

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UNIT: PCS
 Date: 2003/06/26

Date 2003/10/01
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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate @:Phantom Layer	Attrition Rate
	R28,R27,R23,R24,R29,R30,R25,R26					
0009-----	RD00101 SMD fixed resistor 1/10W 10K ±5% 0603 R32,R31,R1			PCS	3.0000 1 0.00 %	2003/04/29 N
0010-----	RD00125 SMD fixed resistor 1/10W 1.0M ±5% 0603 R2			PCS	1.0000 1 0.00 %	2003/04/29 N
0011-----	RE00006 SMDrow resistor1/16W 100 *4 ±5% 8P 0603 AR1,AR2			PCS	2.0000 1 0.00 %	2003/04/29 N
0012-----	SE00011 SMD rectifier diode RLS4148 0.5A (LL-34) D1			PCS	1.0000 1 0.00 %	2003/04/29 N
0013-----	SG00068 SMD integrated circuit 74HC14DT IC1			PCS	1.0000 1 0.00 %	2003/04/29 N
0014-----	SG00138 integrated ciucrt AS4LC256K16E0-60JC IC6			PCS	1.0000 1 0.00 %	2003/04/29 N
0015-----	SG00166 integrated circuit TY-2 ALTO(GMCODE:105022) IC3			PCS	1.0000 1 0.00 %	2003/04/29 N
0001-----	SG00147 integrated circuit CHEF DSP(GMCODE:105022)			PCS	1.0000 1 0.00 %	2003/05/10 N
0016-----	SG00037 SMD integrated circuit LD1117DT33C IC2			PCS	1.0000 1 0.00 %	2003/04/29 N
0017-----	HC00233 IC jack (SMD) PLCC32 (D03-32T.A.4) IC4			PCS	1.0000 1 0.00 %	2003/04/29 N
0018-----	SG00016 SMD integrated circuit UDA1345TS (Philips) IC5			PCS	1.0000 1 0.00 %	2003/04/29 N
0005-----	NE11475 label L-8			PCS	1.0000 1 0.00 %	2003/06/26
0001-----	NH00035 bond paper 0.06*1M			M	1.0000 410 0.00 %	2003/06/26 N
0002-----	NI00017 membrane 0.055*1M			M	1.0000 410 0.00 %	2003/06/26 N
0081-----	MJ01235 side board L-12 left			PCS	1.0000 1 0.00 %	2003/07/28

Multi-Level BOM Structure Listing

Report No.: IEB0_P02
 Prepared by JG020028[王聖堡]
 Item No. PF00271
 DESCRIPTION: L-12
 L-12_ALTO_230V

Version

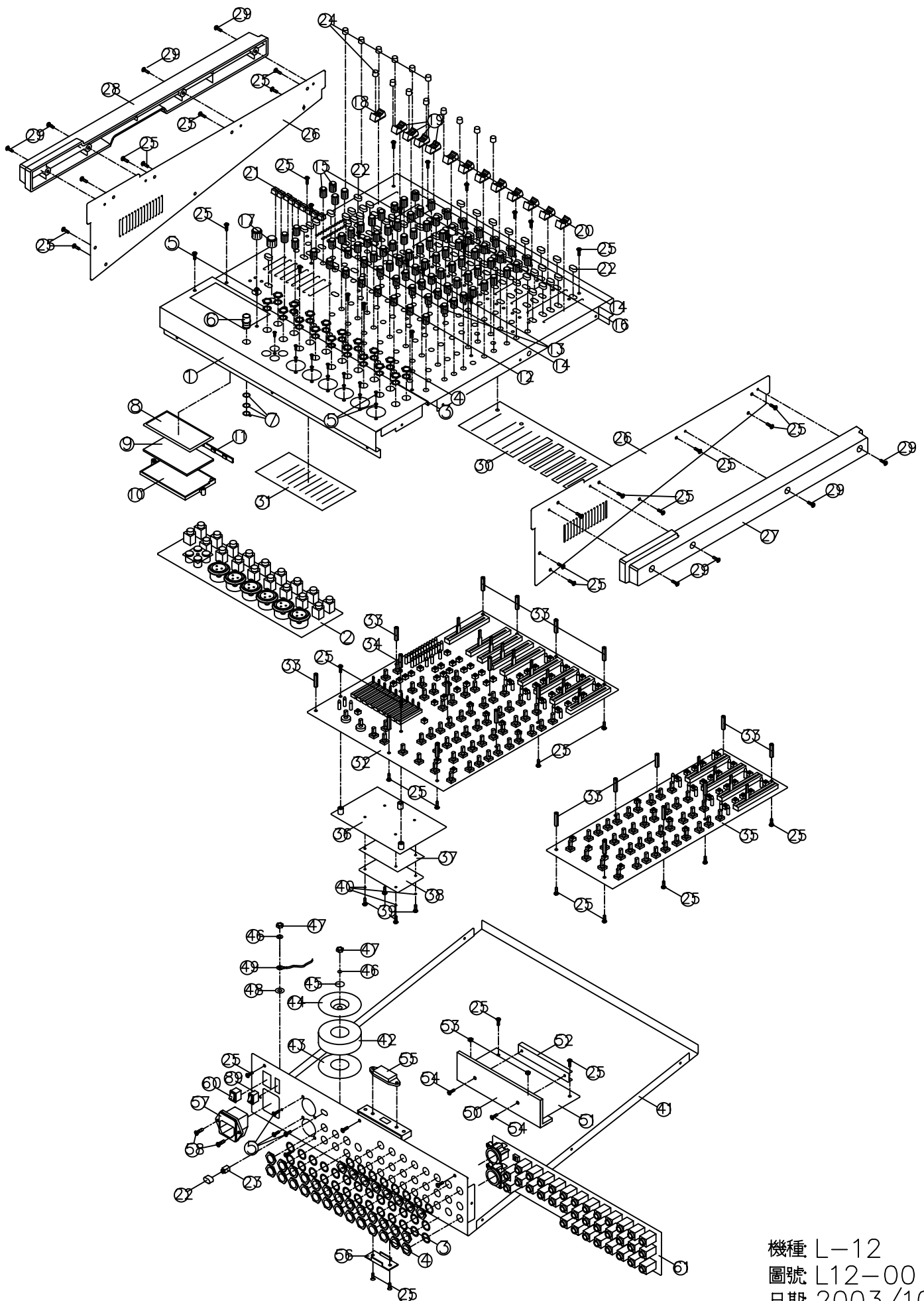
UNIT: PCS
 Date: 2003/06/26

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0001-----	MJ01236				1.0000	2003/07/26
	side board			PCS	1	N
	L-20 left 1.0t*400*115				0.00	%
0001-----	MJ00058				1.0000	2003/07/30
	iron board			PCS	50	N
	1*2135*1220 20.45kg			KG	0.00	%
0082-----	HA02453				1.0000	2003/07/31
	wire			PCS	1	
	20P-20P UL2651 28AWG PH1.27mm 40mm				0.00	%
0083-----	MG00112				1.0000	2003/08/19
	screw			PCS	1	
	M4*52				0.00	%
0084-----	NI00441				2.0000	2003/08/19
	rubber coil			PCS	1	
	20* 90*2tB				0.00	%
0085-----	MH00772				1.0000	2003/08/19
	iron piecet			PCS	1	
	8* 80*1.2				0.00	%
0001-----	MH00774				1.0000	2003/01/13
	iron piecet			PCS	1	N
	8* 80*1.2				0.00	%
0001-----	MJ00059				1.0000	2002/04/12
	iron board			PCS	350	N
	1.2*2135*1220 24.54kg			KG	0.00	%
0086-----	MJ01248				1.0000	2003/08/19
	caushion			PCS	1	
	0.3t* 95 L-12				0.00	%
0087-----	NB02474				1.0000	2003/08/19
	cushion			PCS	1	
	L-12;16;20series right				0.00	%
0088-----	NB02473				1.0000	2003/08/19
	cushion			PCS	1	
	L-12;16;20series contrary				0.00	%
0089-----	HA02133				1.0000	2003/09/08
	wiring			PCS	1	
	270mm black 7/0.16				0.00	%
0090-----	MJ00808				3.0000	2003/09/08
	power clip			PCS	1	
	WL3-32T				0.00	%
0091-----	NC00080				3.0000	2003/09/08
	wood washer			PCS	1	
	3.17* 8.2*1				0.00	%
0001-----	NC00079				1.0000	2003/02/25
	insulation			KG	1	N
	8.2*1				0.00	%
0001-----	NC00014				68.0000	2002/04/04
	insulator			KG	39000000	N
	0.65M*60M*1t				0.00	%
0092-----	NA00137				1.0000	2003/09/08
	clip-chain bag			PCS	1	
	5*7				0.00	%
0093-----	MG00322				2.0000	2003/09/25
	copper pillar			PCS	1	
	3.5* 6*10				0.00	%

8. Exploded Views

SEKAKU



機種 L-12
圖號 L12-00
日期 2003/10/

		Mechanical Parts List		
Model No.		ALTO L-12		
NO	Item No	Item Description		
1	MA03906	panel	L12	1
2	HK03984	PC board	P-L12PU2-DIP	1
3	MF00061	washer	JY-6351G-02-250	51
4	ME00060	socket nut	JY-6351G-02-250	51
5	MG00061	screw	M3*10	19
6	HC00342	TNC adoptor	WJ-7422	1
7		Appendix		
8	NI02638	lacid plastic panel	L-12 (3t*97.5*49mm)	1
9	NI02640	lacid plastic panel	L-12 (3t*91.5*56mm)	1
10	NI02642	fixed plate	L-12 (6.8*110*63.3 white)	1
11	HK04001	PC board	P-L12LED	1
12	NI02084	knob	10.5*18	9
13	NI02083	knob	10.5*18	28
14	NI02082	knob	10.5*18	12
15	NI02081	knob	10.5*18	34
16	NI02633	knob	10.5*18	13
17	NI02386	konb	14*13mm	2
18	NI02352	knob	24*11.5*11	1
19	NI02353	knob	24*11.5*11	4
20	NI02309	knob	24*11.5*11	8
21	NI01166	slide key	6*7*8 COOL GRAY 8U	9
22	NI01863	key	5.5*W10*7.5	66
23	NI02377	knob	5.5*7.5mm(内3.3*3.3mm)	14
24	NI01862	key	5.5*5.5*14.5	1
25	MG00041	screw	M3*6	69
26	MJ01159	side board	L20 right	1
27	NI02548	handle	401*31*25mm	1
28	NI02547	handle	401*31*25mm	1
29	MG00027	screw	M3*12	8
30	ND00246	non wonen	0.35t*360*100mm black	1
31	ND00247	non wonen	0.35t*112.5*56.5mm black	1
32	HK04012	PC board	P-L12MN1-DIP	1
33	MG00304	copper pole	M3*14*0.5PH	21
34	MG00284	copper pillar	M3*8*0.5PH	1
35	HK03991	PC board	P-L12MN2-DIP	1
36	MJ01225	partitions	L-12 1.2t*100.5*74.5	1
37	NI02620	insulation board	1*86.5*53 L-8	1
38	HK01524	K-PC boark	P-313123-DIP(L-12)	1
39	MG00020	screw	M3*8	4
40	NI00863	insulate bean	T0220B	4
41	MB02788	rear board	L-12	1
42	TD00191	loop transformer	PT-LMIXER	1
43	NI00441	rubber coil	20* 90*2tB	2
44	MH00772	iron piecet	8* 80*1.2	1
45	MF00019	washer	4* 12*1t	1
46	MF00038	washer	4* 7*1t	2
47	ME00016	colour nut	4m/m	3

48	MF00048	washer	4* 8*0.5t	1
49	HA01174	signle terminal wiring CF:W146	80 green/yellow	1
50	MI00584	heat-sink	4*40*20*140 L-12	1
51	HK04029	PC board	P-L12PWR	1
52	MI01762	fixed bracket	1.2t*112*12*5 L-12	1
53	ME00015	colour nut	3m/m	2
54	MG00170	screw	M3*14	2
55	HI00120	slide switch	L21-22A	1
56	MI01765	switch cover	L-12	1
57	HC00008	AC outlet	3515 A TYPE(RF-2004-C-4.8)	1
58	MG00042	screw	M3*10	4
59	HI00171	power switch	R612KKAT0F1	1
60	HI00026	power switch	RA12KKAT0F 2P	1
61	HK03982	PC board	P-L12PU1-DIP	1