



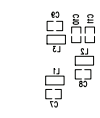
Alchemist 112/212/HD

**Alchemist
Service Manual**





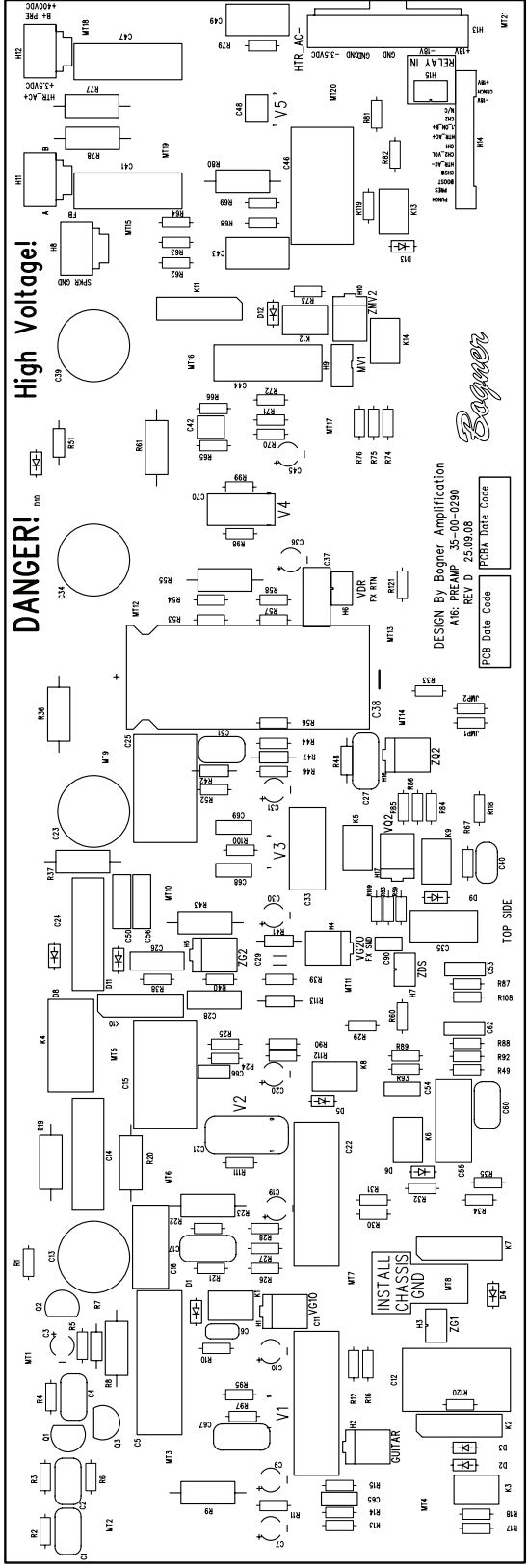
35-00-0275-1,2,3
 IN 84780 VA :874
 22-03-00-02
 805\52\CO A VER
 03/25/08



SILKSCREEN BOTTOM

COMPANY:	
PROGRAM: PADS POWER PCB 2004	
FILE: A16 AV Speaker-XLR-FX-Guitar REV A.PCB	
SCALE: 1:1	DATE: 03/25/08
REV: A	
TITLE: A16 AV Speaker-XLR-FX-Guitar REV X1.PCB	
35-00-0275-1,2,3	

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SILKSCREEN TOP

COMPANY: **LINE 6**

PROGRAM: PADS Layout 2005

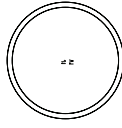
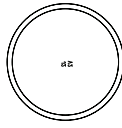
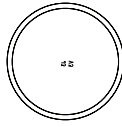
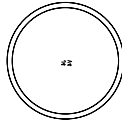
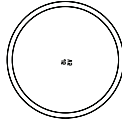
FILE:

SCALE: 1:1 REV: D DATE: 25 September 2008

TITLE: A16 CALL- Preamp PCB 35-00-0290


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SILKSCREEN TOP



SILKSCREEN BOTTOM

SILKSCREEN BOTTOM


COMPANY: 		LINE 6	
PROGRAM: PADS Layout 2005			
FILE:			
SCALE: 1:1	REV: D	DATE: 25 September 2008	
TITLE: A16 CALL- Preamp PCB 35-00-0290			

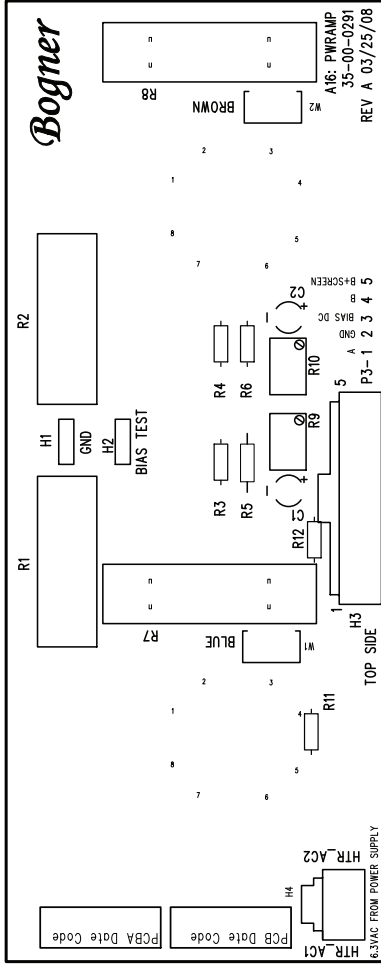
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SILKSCREEN BOTTOM




SILKSCREEN BOTTOM	
COMPANY:	 LINE 6
PROGRAM: PADS Layout 2005	
FILE:	
SCALE: 1:1	REV: B
DATE: 06/01/08	
TITLE: A16 CALI- PSU PCB 35-00-0292	
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LINE 6 INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF LINE 6 INC. IS PROHIBITED.	

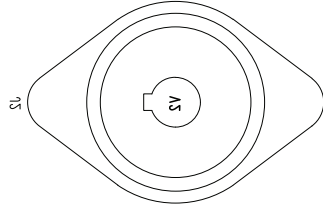
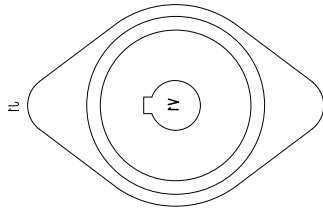


SILKSCREEN TOP

SILKSCREEN TOP


COMPANY:	
PROGRAM:	PADS Layout 2005
FILE:	A16 CALL- Pwramp PCB 35-00-0291
SCALE:	1:1
REV:	A
DATE:	03/25/08
TITLE:	A16 CALL- Pwramp PCB 35-00-0291

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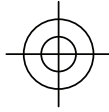
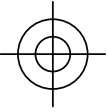
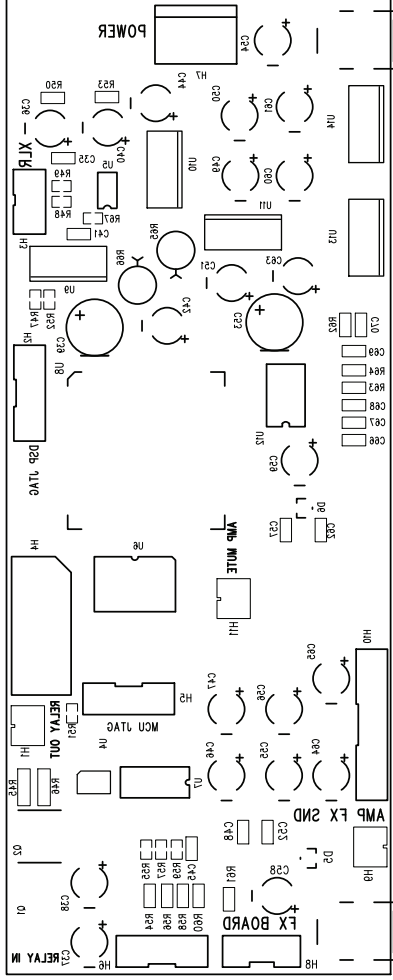
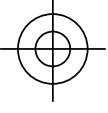


SILKSCREEN BOTTOM

SILKSCREEN BOTTOM

COMPANY:			
PROGRAM: PADS Layout 2005			
FILE:	A16 CALI- Pwramp	PCB 35-00-0291	
SCALE: 1:1	REV: A	DATE: 03/25/08	
TITLE: A16 CALI- Pwramp PCB 35-00-0291			

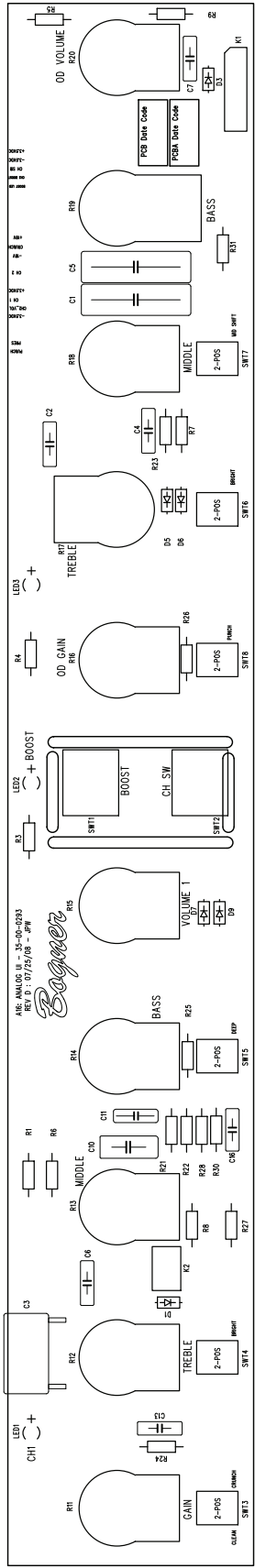
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LINE 6 Inc.	
PROGRAM: PADS POWER PCB 2004	
FILE: A16 AV Main Rev A.PCB	
SCALE: 1:1	REV: A
DATE: 03/25/08	
A16: AV MAIN	
PART NO # 35-00-0274	




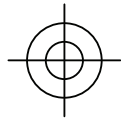
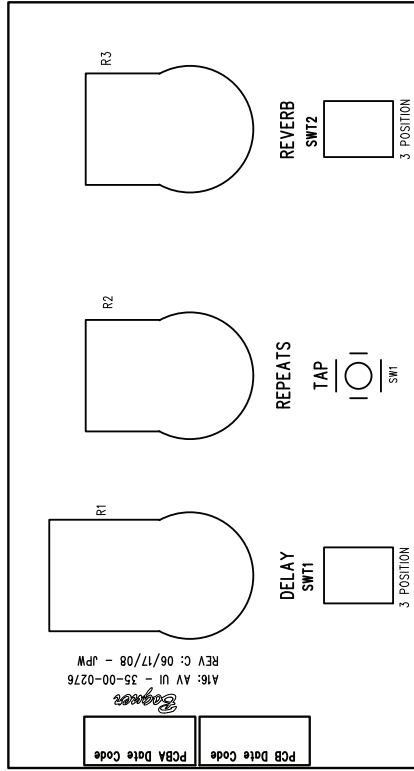
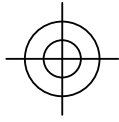
SILKSCREEN TOP

COMPANY:	LINE 6
PROGRAM:	PADS POWER PCB 2004
FILE:	A16 AV ANALOG UI REV D.PCB
SCALE:	1:1
DATE:	07/25/08
REV:	C
TITLE:	A16: AV ANALOG UI 35-00-0293
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LINE 6 INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITT	




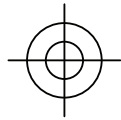
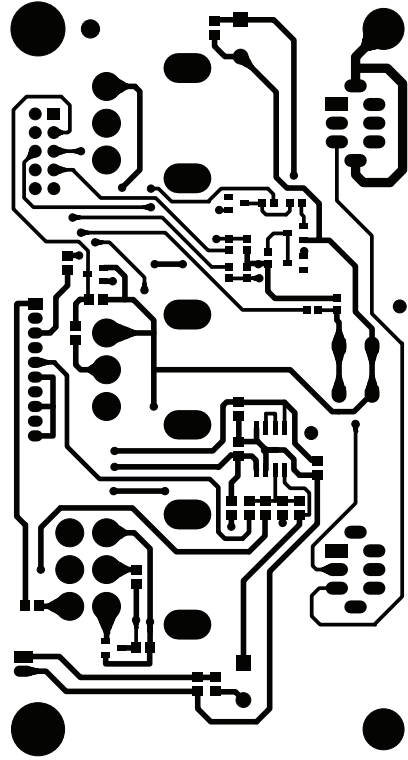
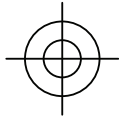
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COMPANY:		 LINE 6	
PROGRAM: PADS POWER PCB 2004			
FILE: A16 AV ANALOG UI REV D.PCB			
SCALE: 1:1	REV: C	DATE: 07/25/08	
TITLE: A16: AV ANALOG UI 35-00-0293			
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SILKSCREEN TOP

COMPANY:		 LINE 6	
PROGRAM: PADS POWER PCB 2004			
FILE: A16 AV UI REV C.PCB			
SCALE: 1:1	REV: C	DATE: 06/17/08	
TITLE:		A16: AV UI 35-00-0276	
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ARTWORK BOTTOM

COMPANY:



LINE 6

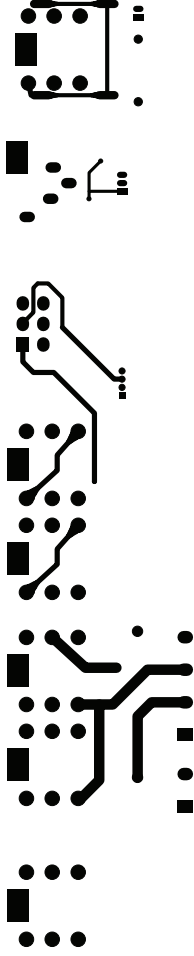
PROGRAM: PADS POWER PCB 2004

FILE: A16 AV UI REV C.PCB


SCALE: 1:1 REV: C DATE: 06/17/08

TITLE: A16: AV UI 35-00-0276

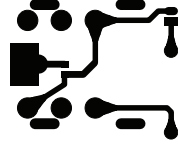
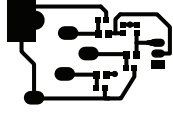
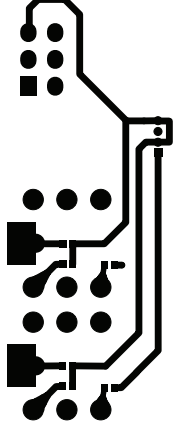
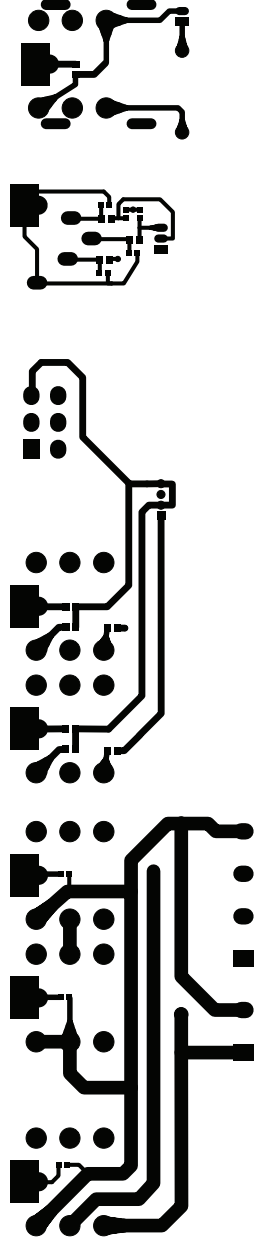
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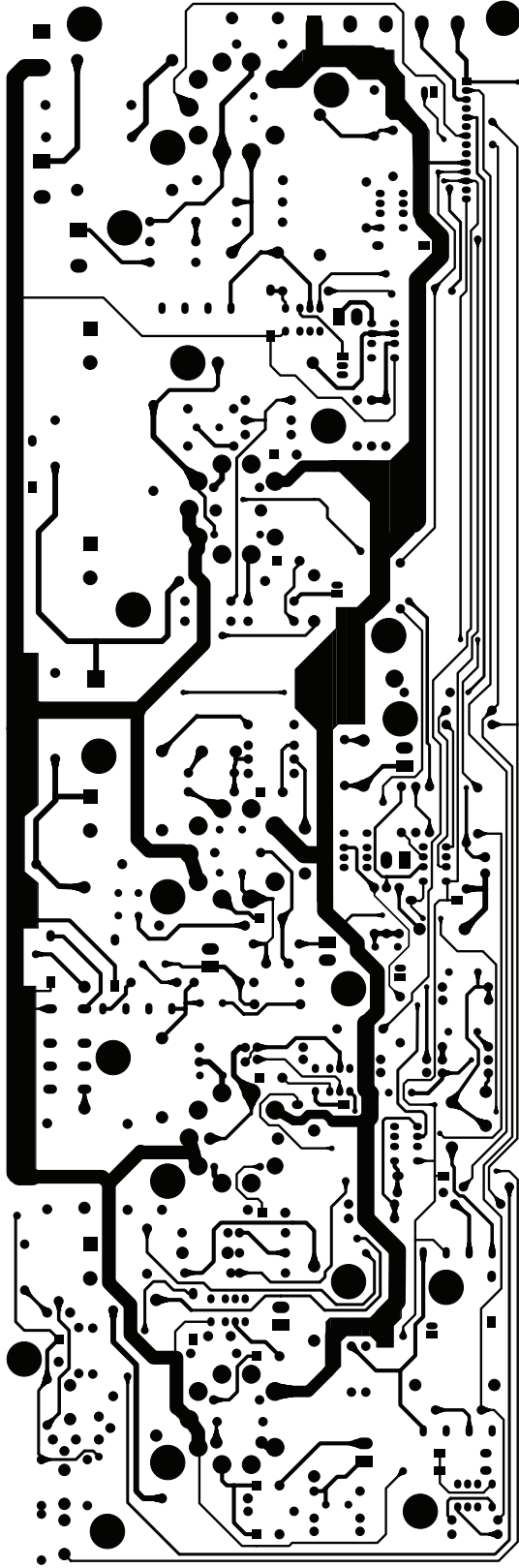
COMPANY:		LINE 6
PROGRAM:	PAOS POWER PCB 2004	
FILE:	A16 AV Speaker-XLR-FX-Guitar REV X1.PCB	
SCALE:	1:1	DATE: 03/29/08
REV:	A	
TITLE:	A16 AV Speaker-XLR-FX-Guitar REV X1.PCB	35-00-0275-1,2,3

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ARTWORK BOTTOM

COMPANY:			
PROGRAM: PADS POWER PCB 2004			
FILE: A16 AV Speaker-XLR-FX-Guitar REV A.PCB			
SCALE: 1:1	REV: A	DATE: 03/25/08	
TITLE: A16 AV Speaker-XLR-FX-Guitar REV X1.PCB			
35-00-0275-1,2,3			
<p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LINE 6 INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF LINE 6 INC. IS PROHIBITED</p>			



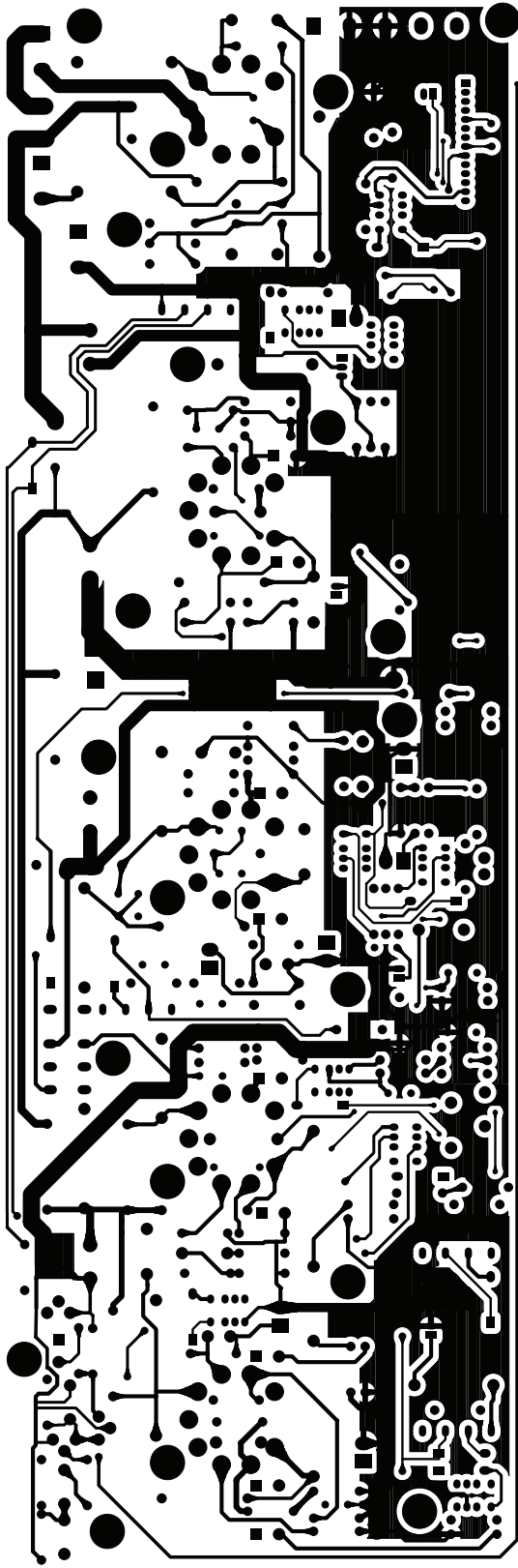
ARTWORK TOP

ARTWORK TOP

COMPANY: 	
PROGRAM: PADS Layout 2005	
SCALE: 1:1	REV: D
DATE: 25 September 2008	
FILE:	
TITLE: A16 CALL- Preamp PCB 35-00-0290	

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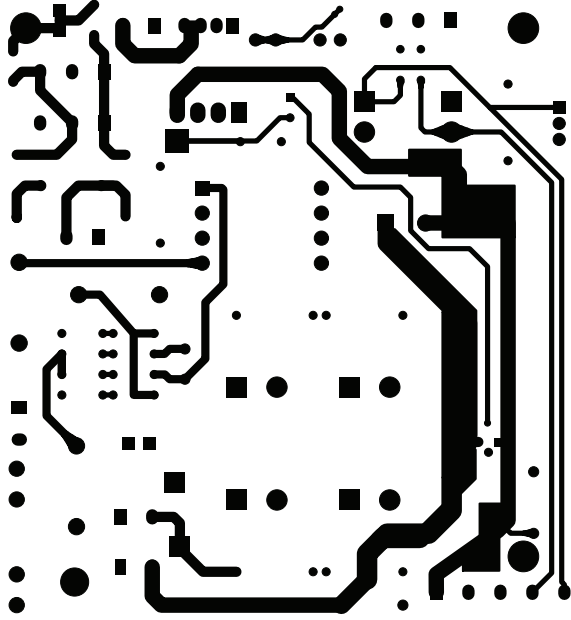
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ARTWORK BOTTOM

COMPANY:	
PROGRAM:	PADS Layout 2005
FILE:	
SCALE:	1:1
REV:	D
DATE:	25 September 2008
TITLE:	A16 CALL- Preamp PCB 35-00-0290

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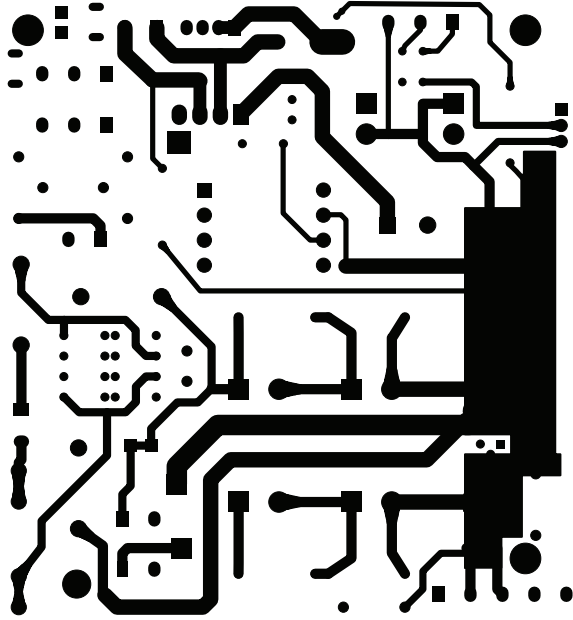
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ARTWORK TOP

COMPANY:		LINE 6
PROGRAM:	PADS Layout 2005	
FILE:		
SCALE: 1:1	REV: B	DATE: 06/01/08
TITLE: A16 CALL- PSU PCB 35-00-0292		


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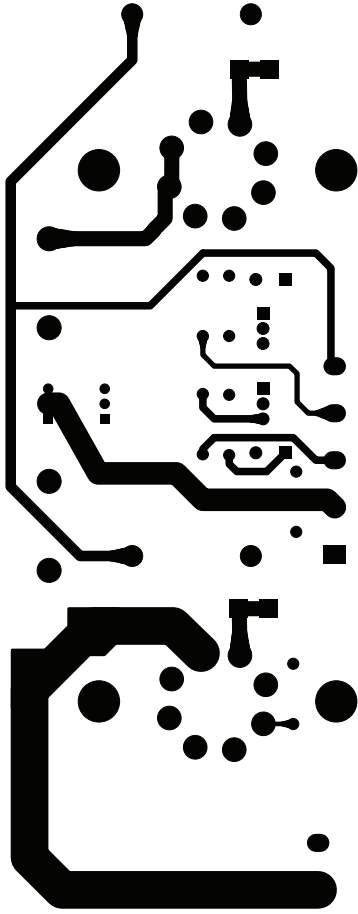
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ARTWORK BOTTOM

COMPANY:		LINE 6
PROGRAM:	PADS Layout 2005	
FILE:		
SCALE:	1:1	REV: B
DATE:	06/01/08	
TITLE:	A16 CALL- PSU PCB 35-00-0292	


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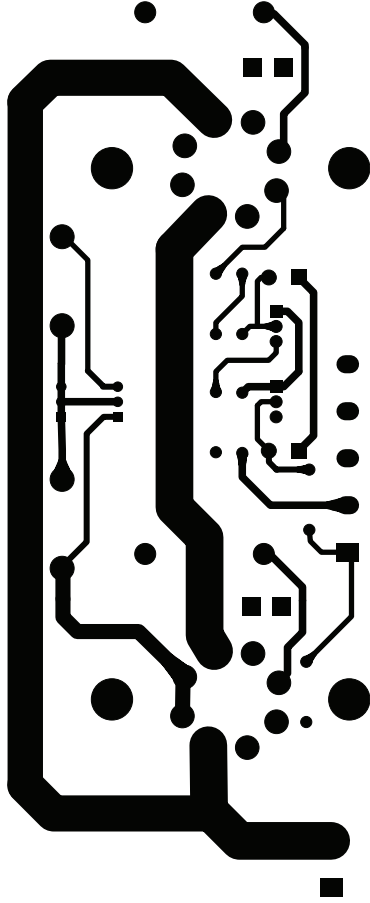
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COMPANY: 	
PROGRAM: PADS Layout 2005	
FILE: A16 CALI- Pwramp PCB 35-00-0291	
SCALE: 1:1	REV: A
	DATE: 03/25/08
TITLE: A16 CALI- Pwramp PCB 35-00-0291	


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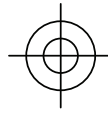
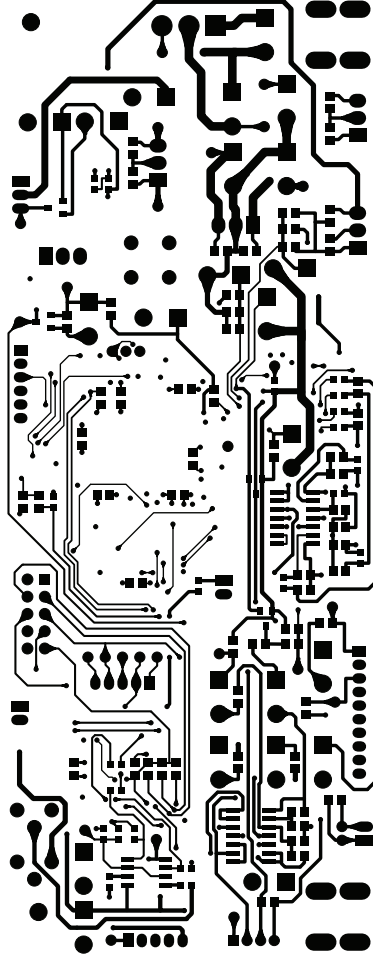
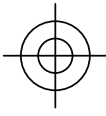
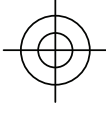


ARTWORK BOTTOM

COMPANY:	
PROGRAM:	PCB Layout 2005
FILE:	A16 CALI- Pwramp PCB 35-00-0291
SCALE:	1:1
REV:	A
DATE:	03/25/08
TITLE:	A16 CALI- Pwramp PCB 35-00-0291


LINE 6

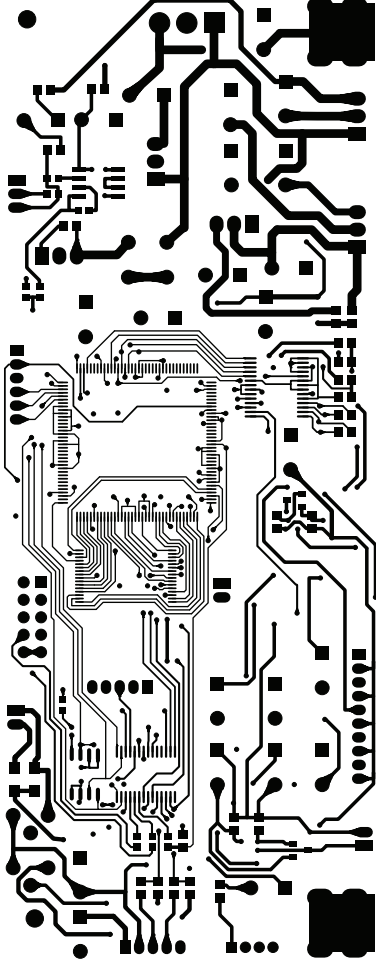
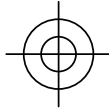
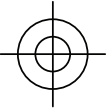
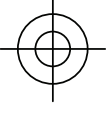
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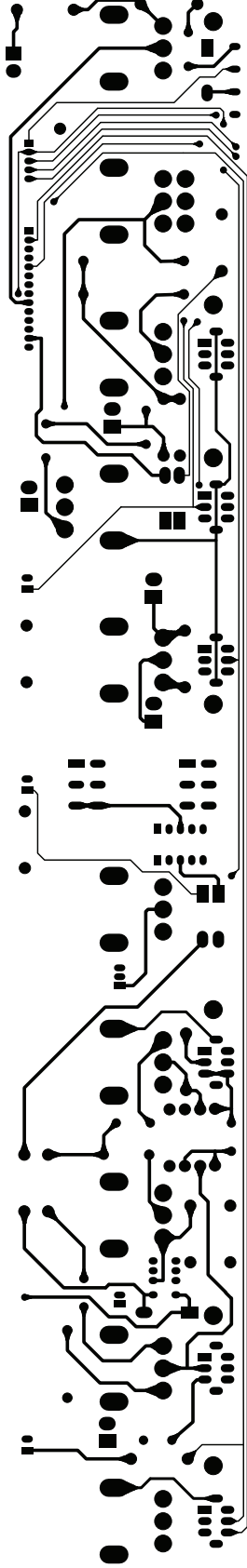
 LINE 6 Inc.	
PROGRAM: PADS POWER PCB 2004	
FILE: A16 AV Main Rev A.PCB	
SCALE: 1:1	REV: A
DATE: 03/25/08	
TITLE: A16: AV MAIN	
PART NO # 35-00-0274	




ARTWORK BOTTOM

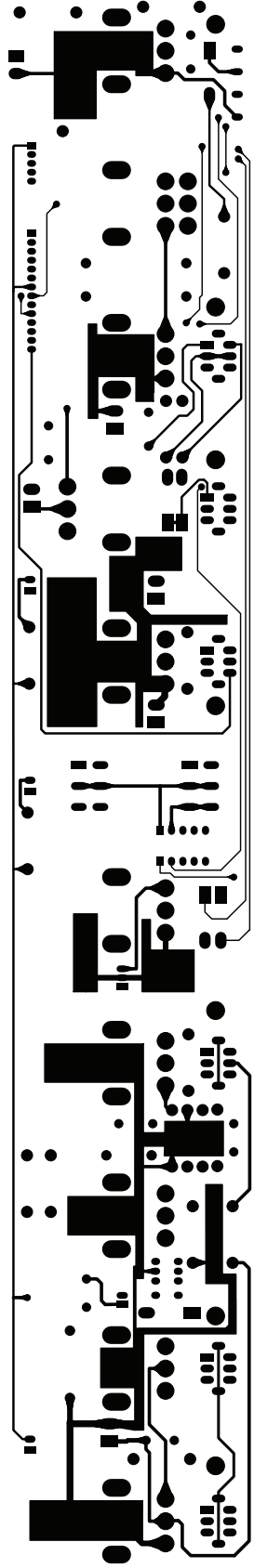
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PROGRAM: PADS POWER PCB 2004	
FILE: A16 AV Main Rev A.PCB	
SCALE: 1:1	DATE: 03/25/08
REV: A	
TITLE: A16: AV MAIN	
PART NO # 35-00-0274	




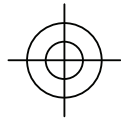
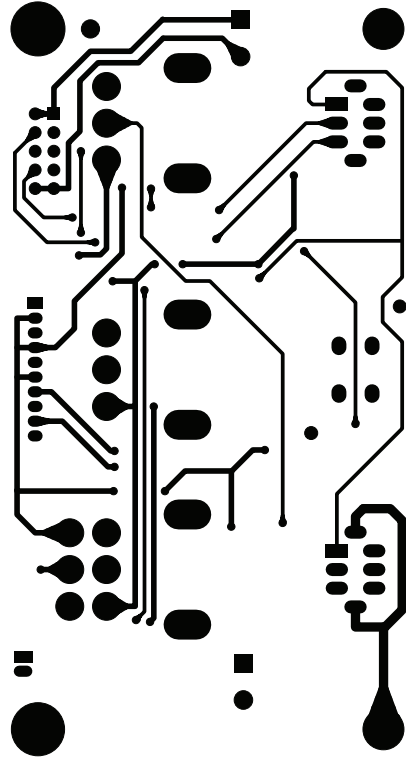
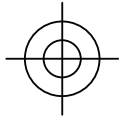
ARTWORK TOP

COMPANY:		LINE 6
PROGRAM:	PADS POWER PCB 2004	
FILE:	A16 AV ANALOG UI REV D.PCB	
SCALE:	1:1	DATE: 07/25/08
REV:	C	
TITLE:	A16: AV ANALOG UI 35-00-0293	
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ARTWORK BOTTOM

COMPANY:	 LINE 6
PROGRAM:	PADS POWER PCB 2004
FILE:	A16 AV ANALOG UI REV D.PCB
SCALE:	1:1
REV:	C
DATE:	07/25/08
TITLE:	A16: AV ANALOG UI 35-00-0293
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ARTWORK TOP

COMPANY:		LINE 6
PROGRAM:	PADS POWER PCB 2004	
FILE:	A16 AV UI REV C.PCB	
SCALE:	1:1	REV: C
		DATE: 06/17/08
TITLE:	A16: AV UI 35-00-0276	
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ECCs INCLUDED ON THIS SCHEMATIC/PCB REVISION	
ECC NO.	DATE:

1	2	3	4	5	6
---	---	---	---	---	---

500mVpp Sine Wave @ 500Hz
 8 ohm load on Speaker Output
 TREBLE, MID, BASS, VOLUME = Max
 GAIN = set to read 40Vpp on 8 ohm load
 All switches to Left unless noted

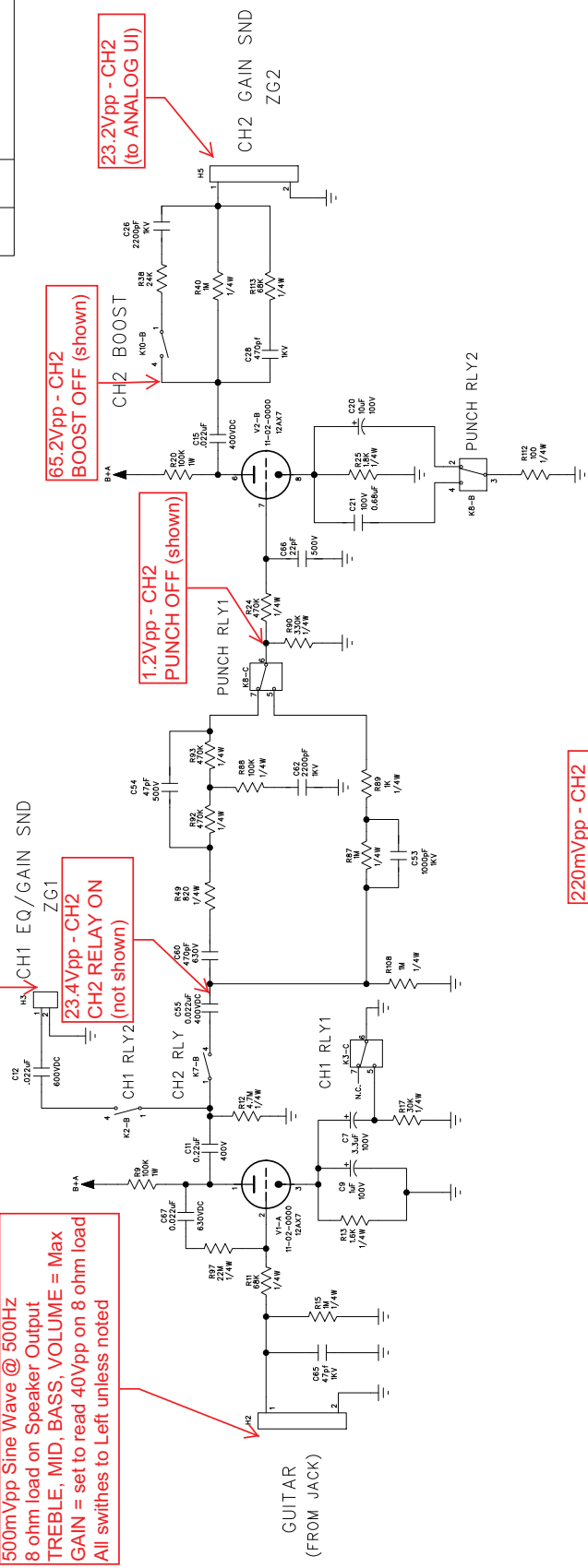
22Vpp - CH1
 (to ANALOG UI)

23.4Vpp - CH2
 CH2 RELAY ON
 (not shown)

1.2Vpp - CH2
 PUNCH OFF (shown)

65.2Vpp - CH2
 BOOST OFF (shown)

23.2Vpp - CH2
 (to ANALOG UI)

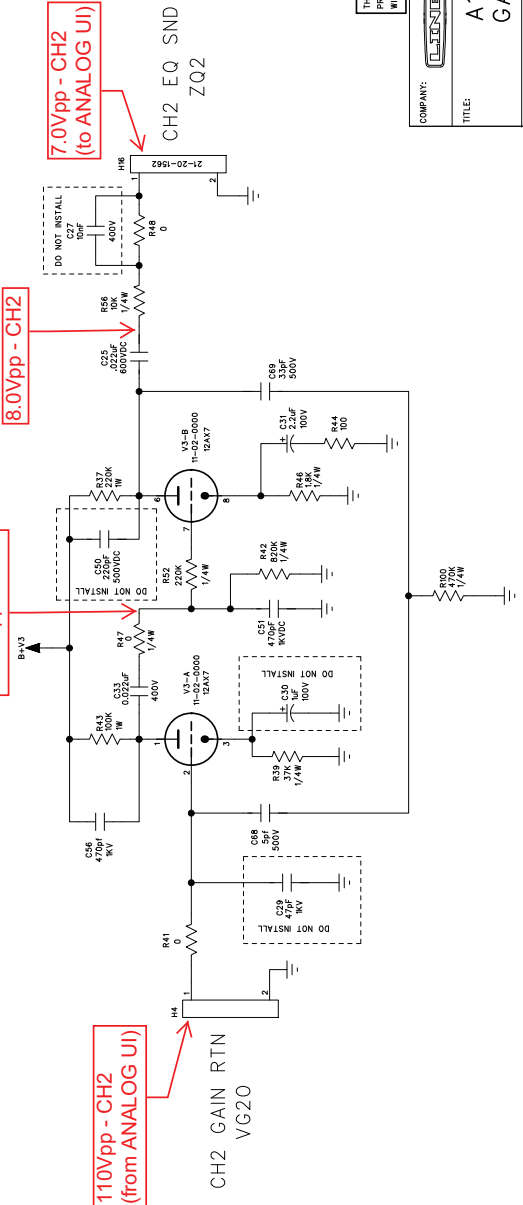


220mVpp - CH2

8.0Vpp - CH2

7.0Vpp - CH2
 (to ANALOG UI)

110Vpp - CH2
 (from ANALOG UI)



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COMPANY:	LINE 6
TITLE:	A16: PREAMP GAIN STAGE 1
PROGRAM:	PADS LOGIC 2005
REV:	C

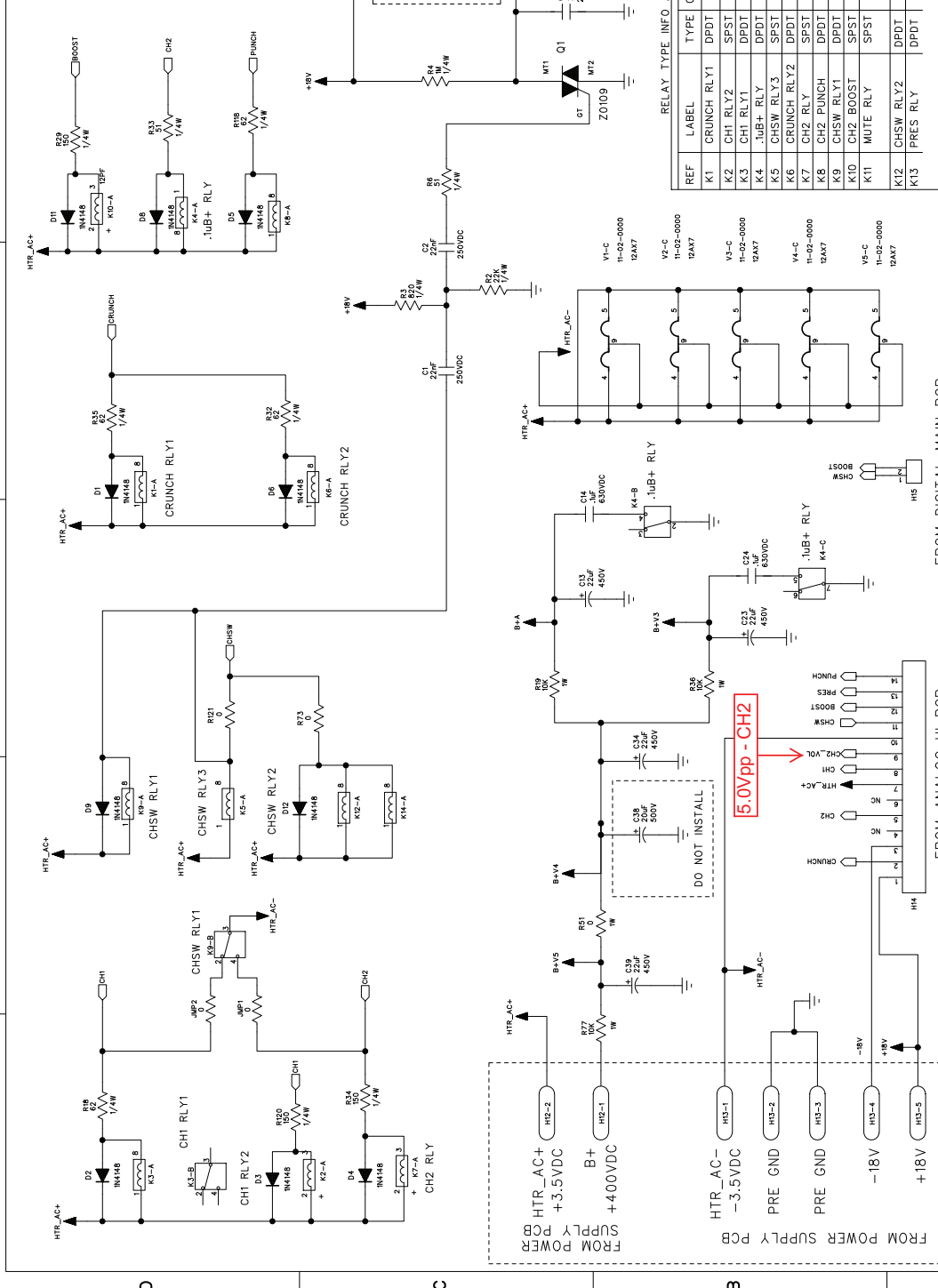
DATE:	06/01/2008
DRAWN:	D. BARTHOLD
CHECKED:	review panel

PRELIMINARY DRAWINGS
 FOR QUOTATION PURPOSES ONLY
 DO NOT USE FOR PRODUCTION

SCALE:	1:1
SIZE:	C
PART NUMBER:	35-00-0290
SHEET:	1 OF 3

ECCs INCLUDED ON THIS SCHEMATIC/PCB REVISION

ECC NO.	DATE:	DESCRIPTION:



RELAY TYPE INFO AND SCHEMO LOCATIONS

REF	LABEL	TYPE	CONTROL SIG	CONTACT 1	CONTACT 2
K1	CRUNCH RLY1	DPDT	CRUNCH	PAGE 1	NOT USED (PG 2)
K2	CH1 RLY2	SPST	CH1	PAGE 1	X
K3	CH1 RLY1	DPDT	CH1	PAGE 1	NOT USED (PG 2)
K4	.IUB+ RLY	DPDT	.I_ON_B+	PAGE 2	PAGE 2
K5	CHSW RLY3	SPST	CHSW	PAGE 1	X
K6	CRUNCH RLY2	DPDT	CRUNCH	PAGE 1	PAGE 1
K7	CH2 RLY	SPST	CH2	PAGE 1	X
K8	CH2 PUNCH	DPDT	PUNCH	PAGE 1	NOT USED (PG 2)
K9	CHSW RLY1	DPDT	CHSW	PAGE 1	PAGE 2
K10	CH2 BOOST	SPST	BOOST	PAGE 1	X
K11	MUTE RLY	SPST	CHSW (VIA TRIAC CKT)	PAGE 1	X
K12	CHSW RLY2	DPDT	CHSW	PAGE 1	PAGE 1
K13	PRES RLY	DPDT	PRES	PAGE 1	NOT USED (PG 2)

COMPANY: **LINEAR**

TITLE: **A16: PREAMP CONTROL & POWER**

PROGRAM: **PADS LOGIC 2005**

DATE: 04/01/2008

DRAWN: J. YARBROUGH

CHECKED: review panel

FILENAME: **C**

SCALE: 1:1

SIZE: C

PART NUMBER: 35-00-0290

SHEET: 3 OF 3

REVISION: **C**

PRELIMINARY DRAWINGS FOR QUOTATION PURPOSES ONLY DO NOT USE FOR PRODUCTION

DESIGN BY REINHOLD BOGNER

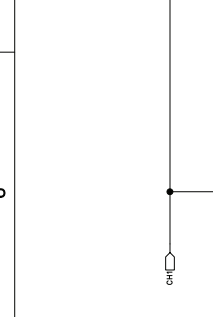
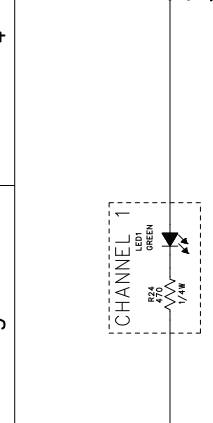
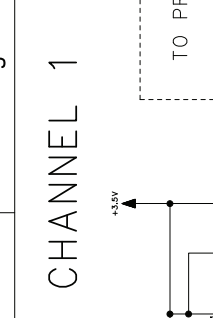
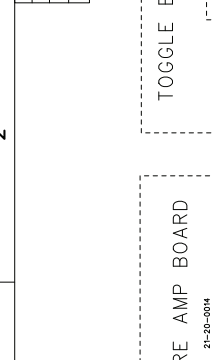
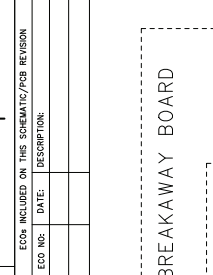
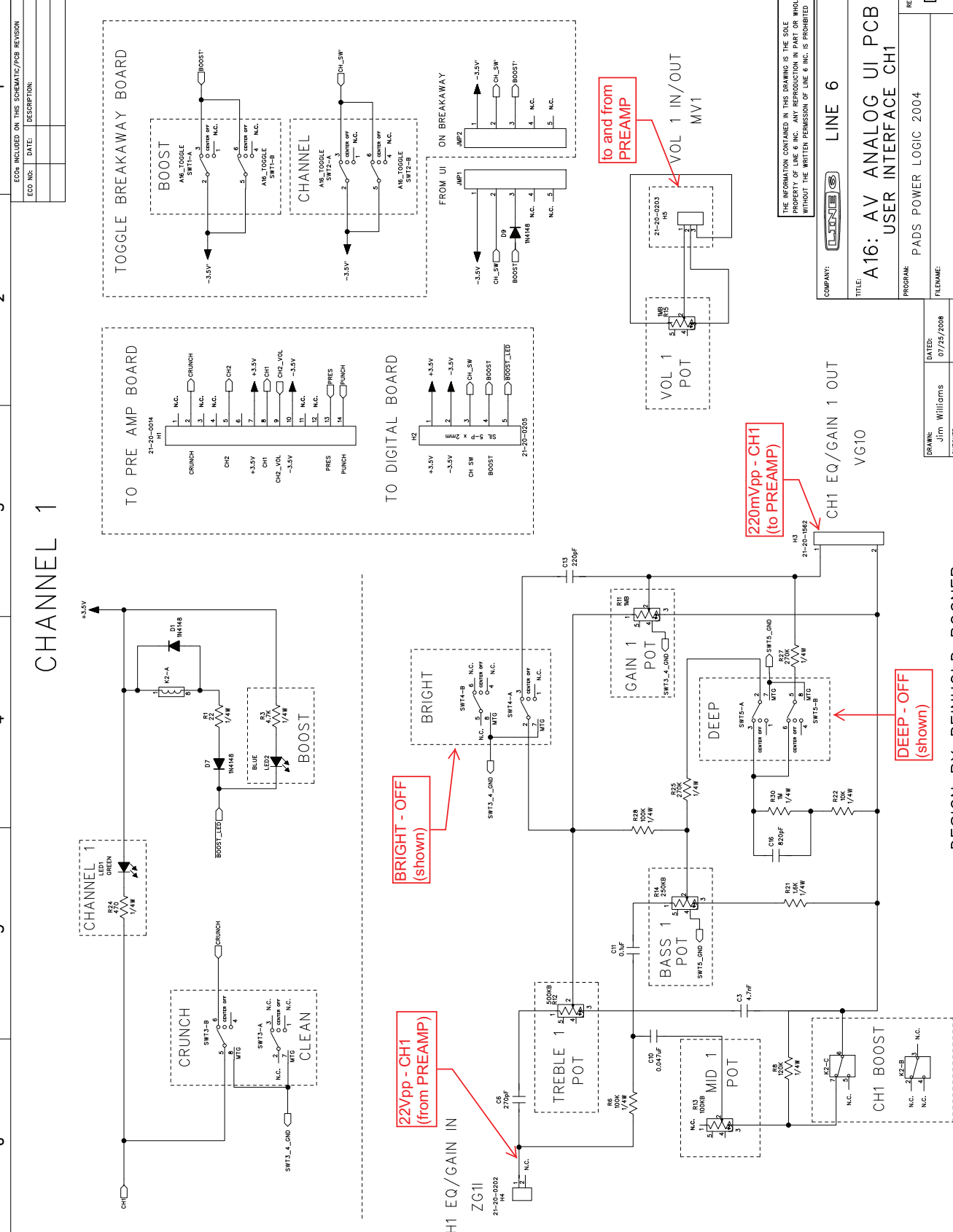
FROM ANALOG UI PCB

FROM DIGITAL MAIN PCB

BOARD MOUNTING HOLES

TUBE SOCKETS

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LINE 6

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COMPANY: **LINE 6**

TITLE: **A16: AV ANALOG UI PCB USER INTERFACE CH1**

PROGRAM: PADS POWER LOGIC 2004

REV: **D**

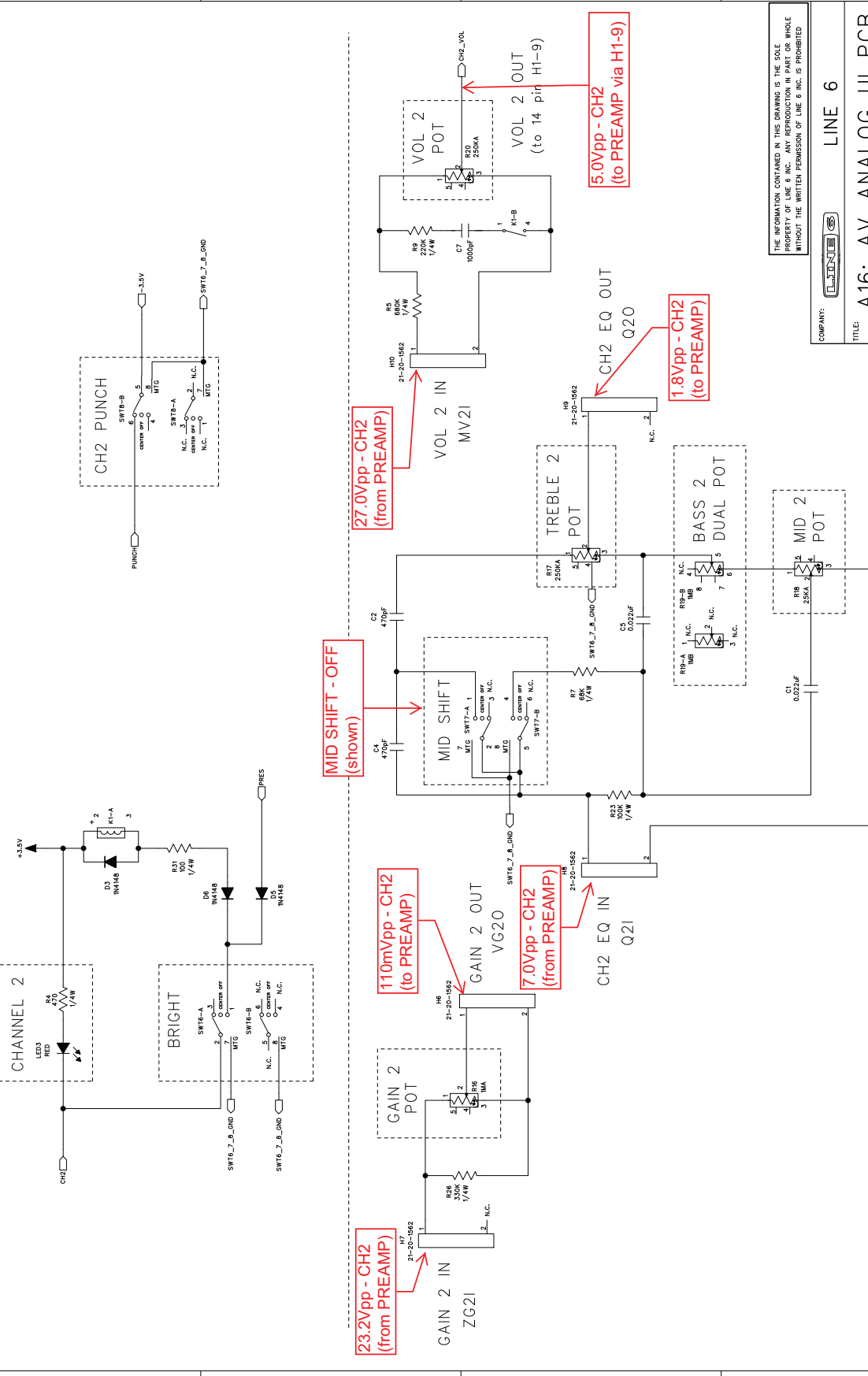
DRAWN: Jim Williams	DATE: 07/25/2008	FILENAME:	REV: D
CHECKED: review panel	DATE:		

SCALE: 1:1 SIZE: C PART NUMBER: 35-00-0293 SHEET: 1 of 2

DESIGN BY REINHOLD BOGNER

CHANNEL 2

ECCs INCLUDED ON THIS SCHEMATIC/PCB REVISION	
ECC NO.	DATE:
DESCRIPTION:	



COMPANY: **LINE 6**

TITLE: **A16: AV ANALOG UI PCB USER INTERFACE CH2**

PROGRAM: **PADS LOGIC 20040**

REV: **D**

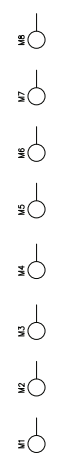
FILENAME: **Product Directory/PCB/Board Directory/Flash**

CHECKED: **Name (F.Last)** DATE: **04/01/2008**

SCALE: **1:1** SIZE: **C** PART NUMBER: **35-00-0293** SHEET: **2 of 2**

DESIGN BY **REINHOLD BOGNER**

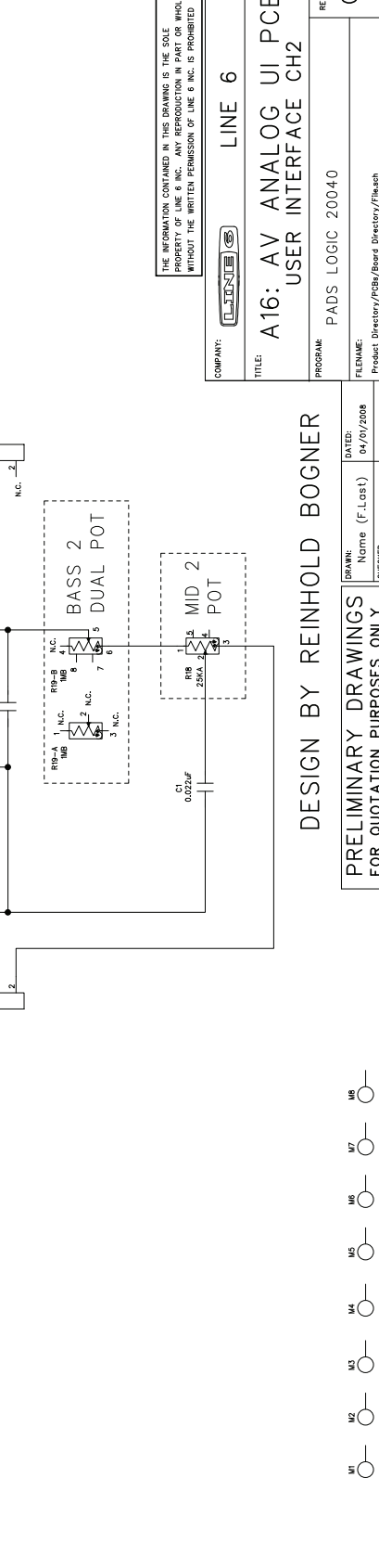
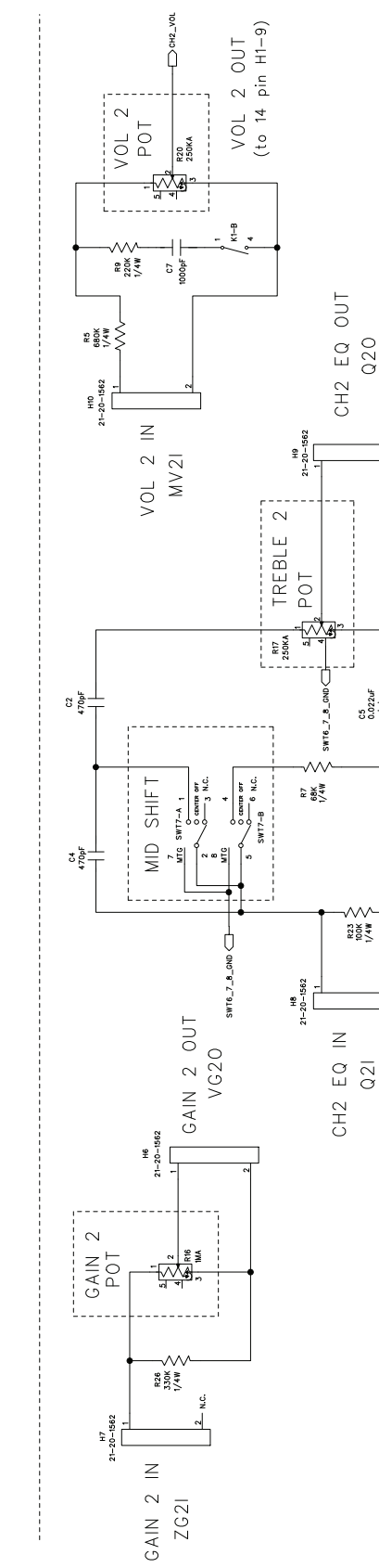
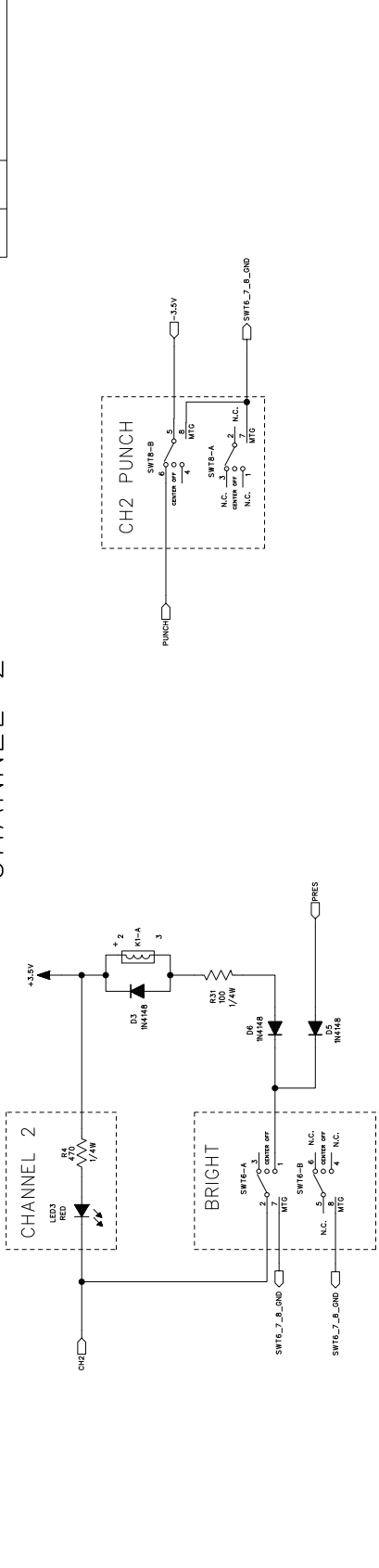
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6 5 4 3 2 1

CHANNEL 2

ECCs INCLUDED ON THIS SCHEMATIC/PCB REVISION	
ECC NO.	DATE
DESCRIPTION	



6 5 4 3 2 1

POWER AMP

425VDC/325VDC
B+ SCREEN
(FROM POWER SUPPLY)

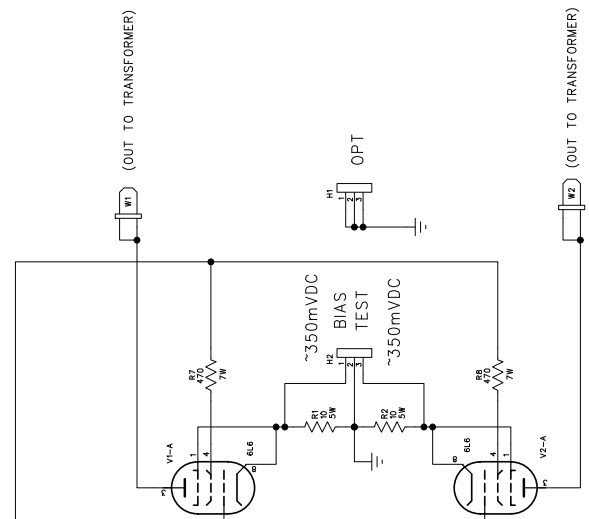
A
(FROM PREAMP)

GND
(FROM POWER SUPPLY)

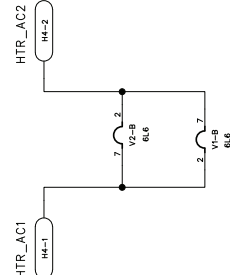
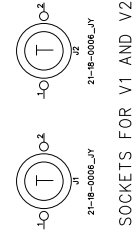
Adjust pots so BIAS OUTPUT is ~350mV.

-75VDC/-60VDC
BIAS
(-V FROM POWER SUPPLY)

B
(FROM PREAMP)



HEATER AC
(APPROX 6.5VAC FROM POWER SUPPLY)



ECS* INCLUDED ON THIS SCHEMATIC/PCB REVISION	
ECD NO.	DESCRIPTION

COMPANY: **LINE 6**

TITLE: **A16: POWER AMP**

PROGRAM: **PADS LOGIC 2005**

REV: **A**

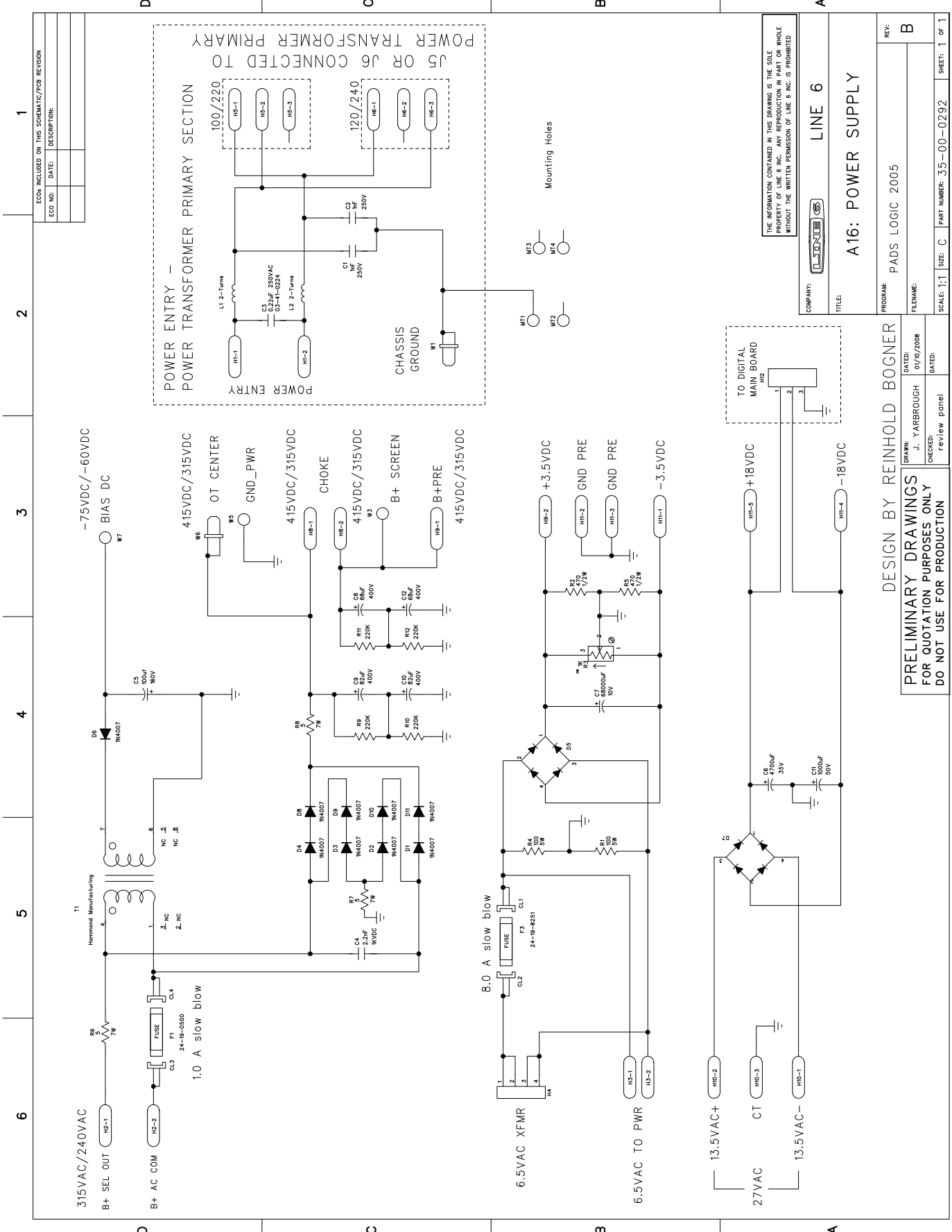
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DESIGN BY **REINHOLD BOGNER**

PRELIMINARY DRAWINGS
FOR QUOTATION PURPOSES ONLY
DO NOT USE FOR PRODUCTION

DATE:	03/25/2008
DRAWN:	J. YARBROUGH
CHECKED:	review panel
DATE:	

SCALE: 1:1 | SIZE: C | PART NUMBER: 35-00-0291 | SHEET: 1 OF 1



ECOs INCLUDED ON THIS SCHEMATIC/PCB REVISION

ECD NO.	DATE	DESCRIPTION

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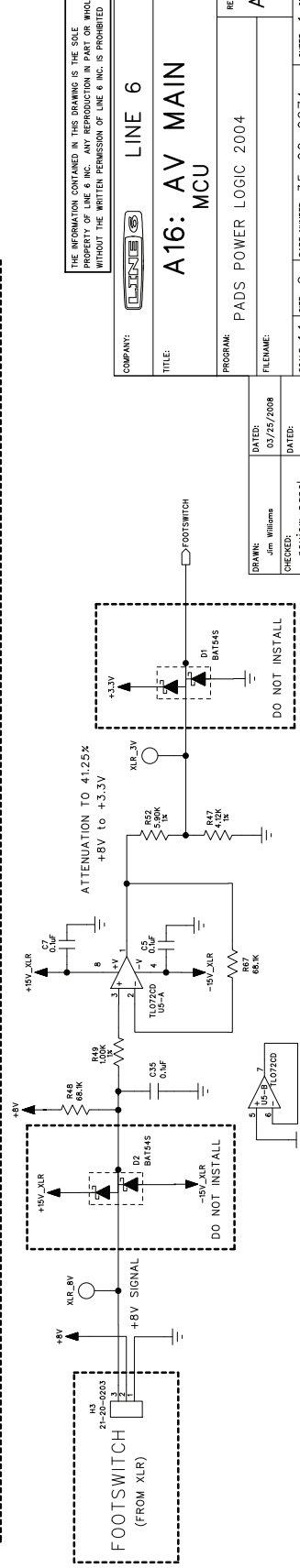
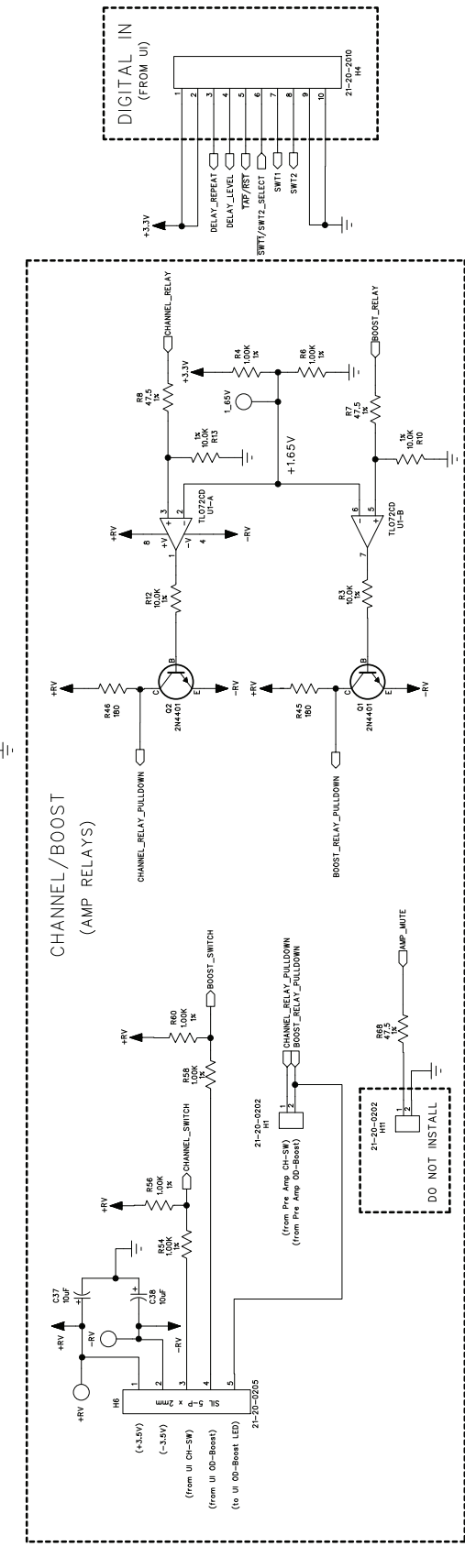
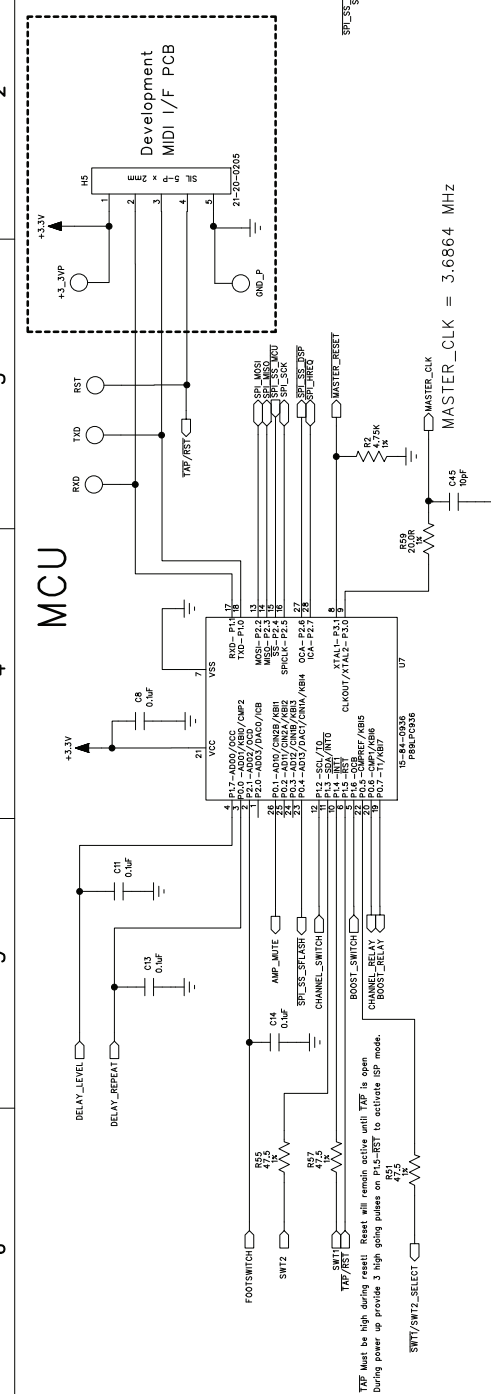
COMPANY:	LINE 6
TITLE:	A16: POWER SUPPLY
PROGRAM:	PADS LOGIC 2005
REV:	B
FILENAME:	
SCALE: 1:1	SIZE: C
PART NUMBER:	35-00-0292
SHEET:	1 OF 1

DESIGN BY REINHOLD BOGNER

PRELIMINARY DRAWINGS FOR QUOTATION PURPOSES ONLY DO NOT USE FOR PRODUCTION

DRAWN:	J. YARBROUGH	DATE:	07/10/2008
CHECKED:	review panel	DATE:	

ECO# INCLUDED ON THIS SCHEMATIC/PCB REVISION	
ECO NO:	DATE:
074903	06/28/07
DESCRIPTION:	
Released on rev.A	

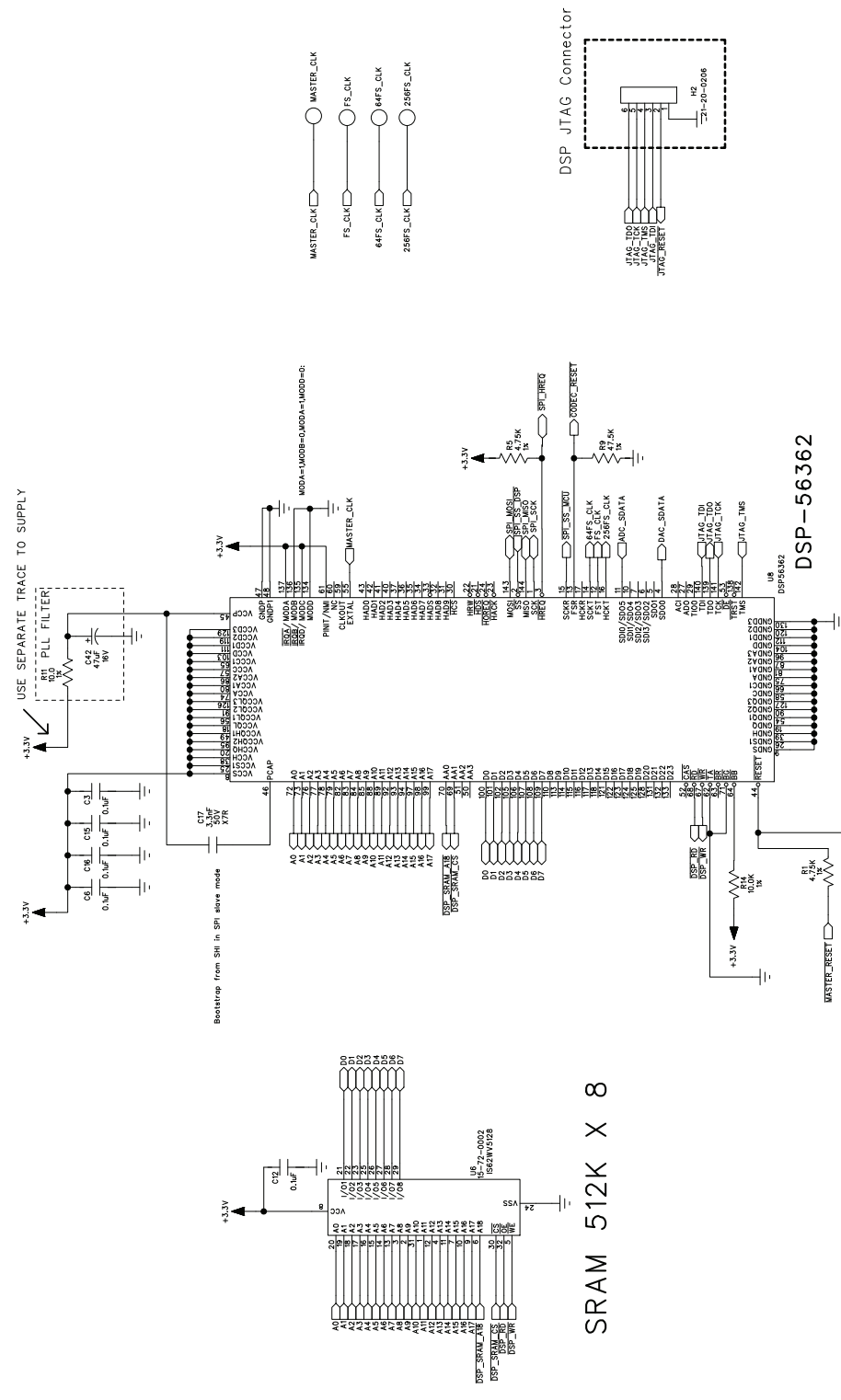


TPP Must be high during reset! Reset will remain active until TPP is open. During power up provide a high going pulse on P15-REST to activate ISP mode.

COMPANY:		LINE 6	
TITLE:		A16: AV MAIN MCU	
PROGRAM:		PADS POWER LOGIC 2004	
DRN:	DATE:	FEI:	REV:
Jim Williams	03/25/2008		A1
CHEK:	DATE:	FILE:	
review panel			
SCALE: 1:1	SIZE: C	PART NUMBER: 35-00-0274	SHEET: 1 of 4

ECO# INCLUDED ON THIS SCHEMATIC/PCB REVISION	
ECO NO.	DATE

DSP



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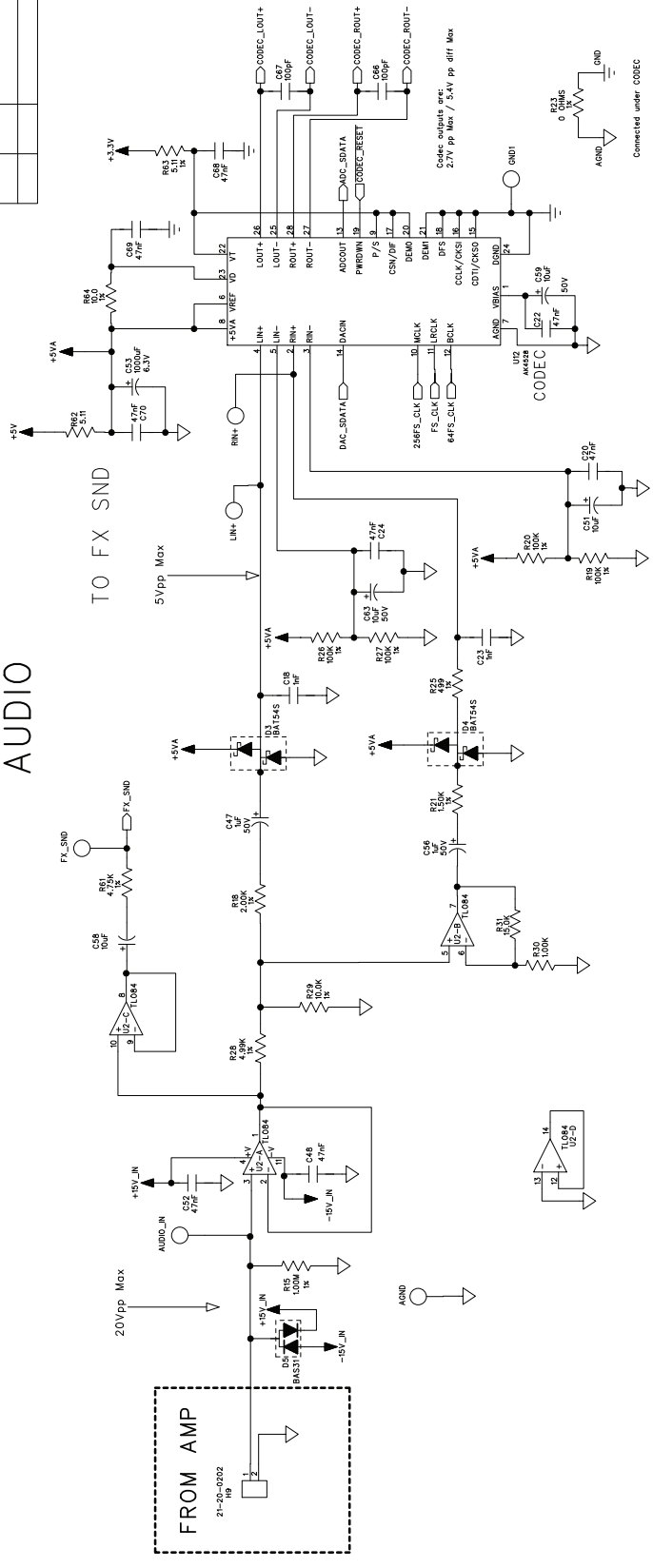
COMPANY:	LINE 6
TITLE:	A16: AV MAIN DSP
PROGRAM:	PADS POWER LOGIC 2004
FILENAME:	
DATE:	03/25/2008
DRAWN:	Jim Williams
CHECKED:	review panel
SCALE:	1:1
SIZE:	C
PART NUMBER:	35-00-0274
SHEET:	2 of 4

MASTER_CLK = 3.6864 MHz
 DSP CORE CLOCK = 120 MHz
 256FS_CLK = 5 MHz
 64FS_CLK = 1.25 MHz
 FS_CLK = 19,531.25 Hz

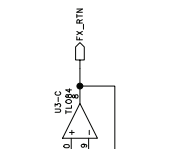
ECO# INCLUDED ON THIS SCHEMATIC/PCB REVISION	
ECO NO.	DATE

1	2	3	4	5	6
---	---	---	---	---	---

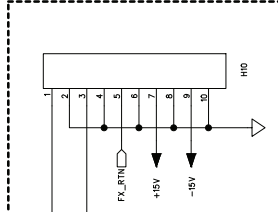
AUDIO



TO FX BOARD



TO UI BOARD



DELAY



REVERB



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COMPANY: **LINE 6**
 TITLE: **A16: AV MAIN AUDIO**

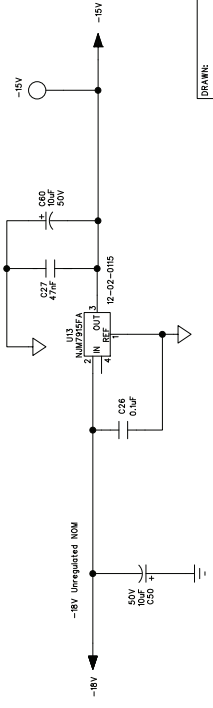
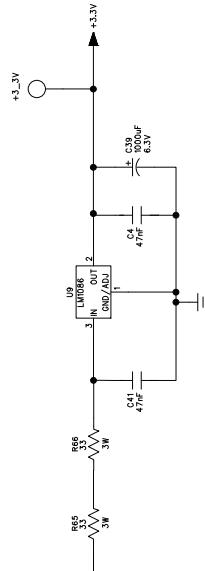
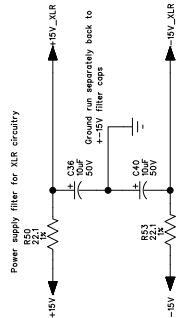
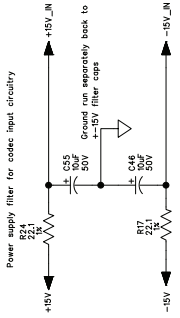
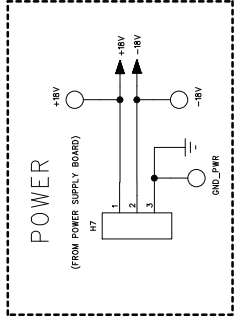
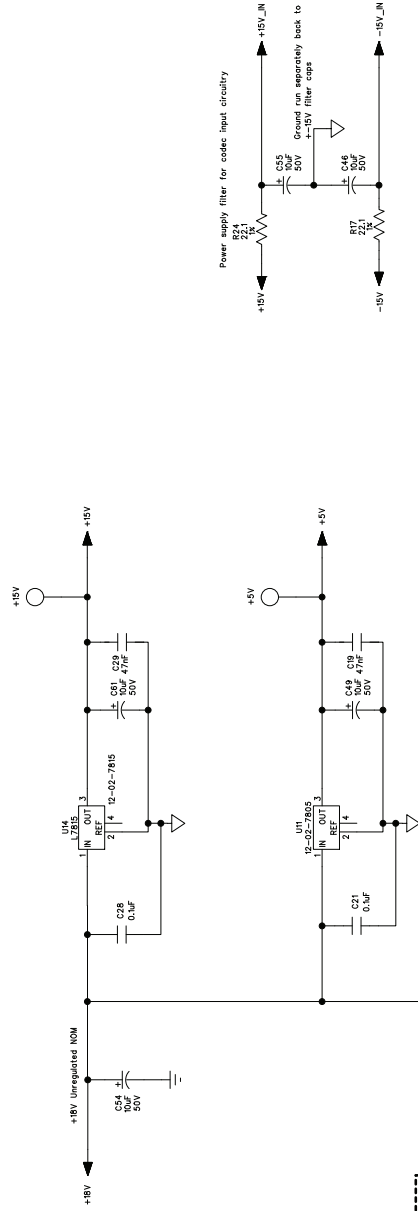
PROGRAM: **PADS POWER LOGIC V5.0**
 DRAWN: **Jim Williams**
 CHECKED: **review panel**
 DATE: **03/25/2008**

SCALE: **1:1** SEE: **C** PART NUMBER: **35-00-0274** SHEET: **3 of 4**

REV: **A1**

POWER

ECO# INCLUDED ON THIS SCHEMATIC/PCB REVISION	
ECO NO:	DATE:
	DESCRIPTION:



COMPANY: LINE 6

TITLE: **A16: AV MAIN POWER**

PROGRAM: PADS POWER LOGIC 2004

REVISION: A1

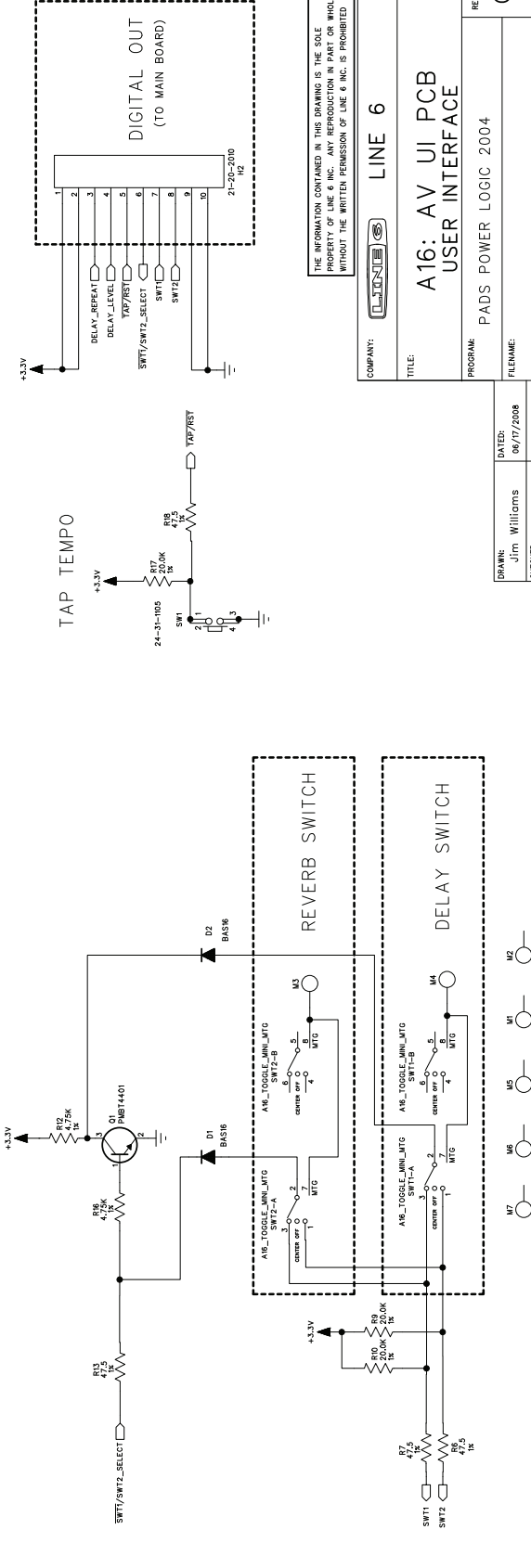
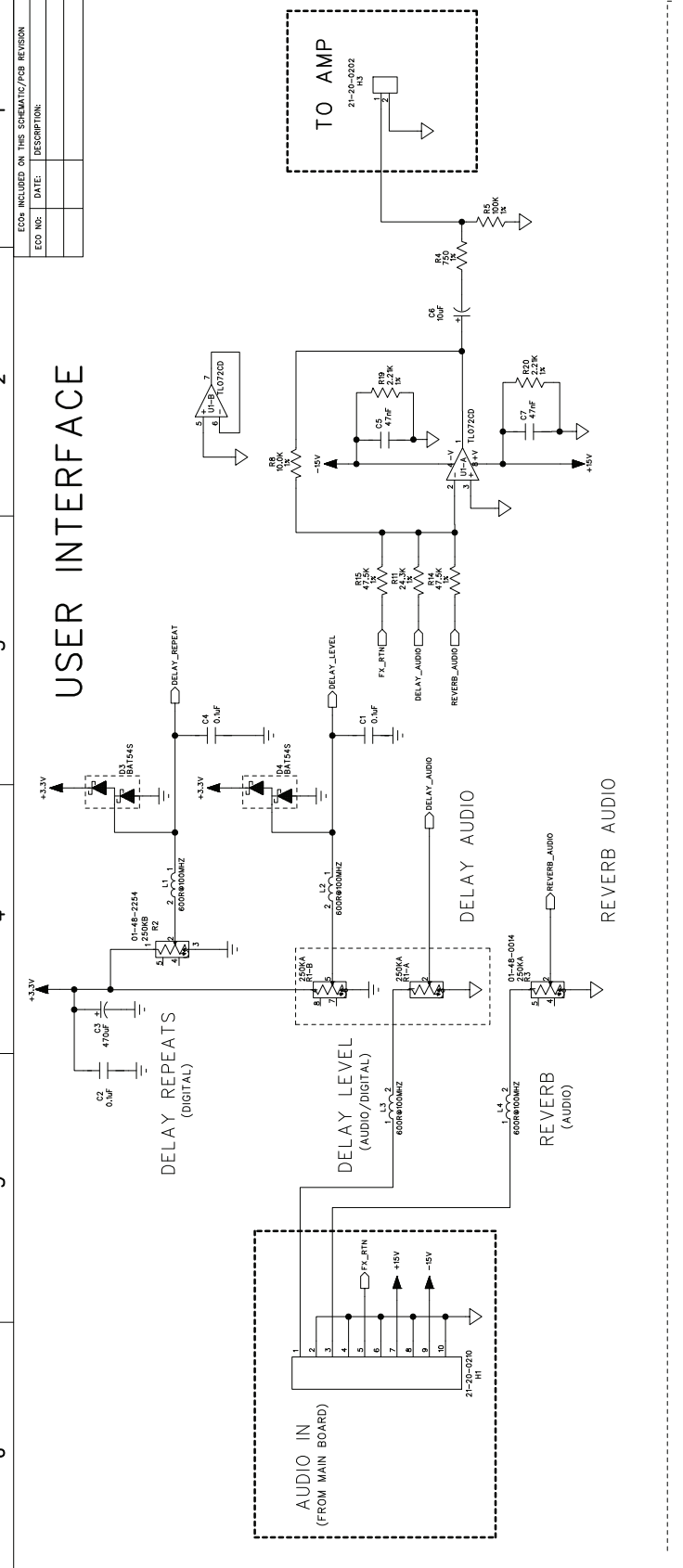
DRIVER: Jim Williams DATE: 03/25/2008

CHECKED: review panel

SCALE: 1:1 SIZE: C PART NUMBER: 35-00-0274 SHEET: 4 of 4

ECO# INCLUDED ON THIS SCHEMATIC/PCB REVISION	
ECO NO.	DATE

USER INTERFACE

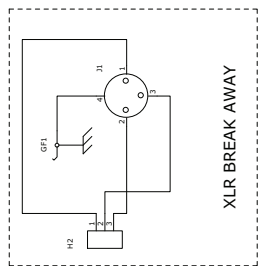
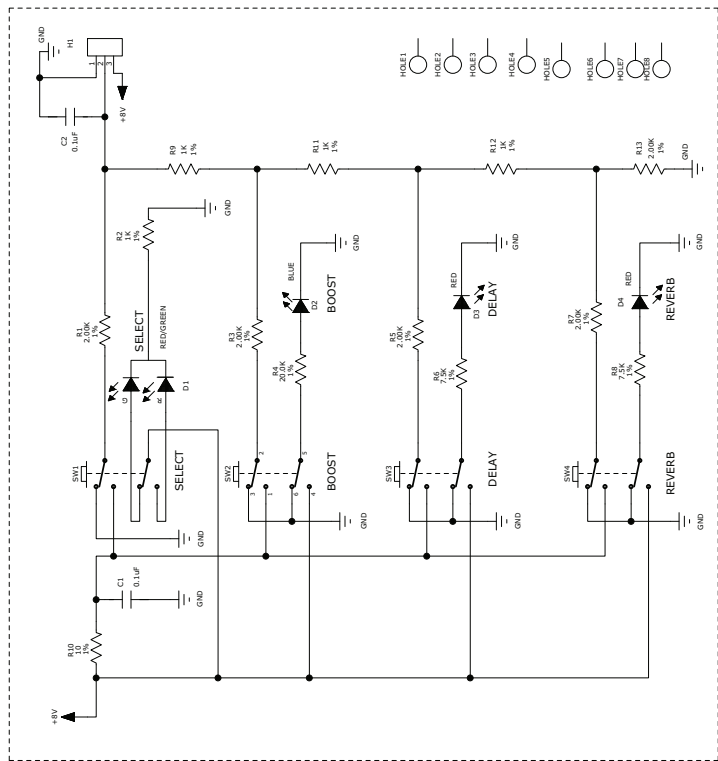


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COMPANY:	LINE 6
TITLE:	A16: AV UI PCB USER INTERFACE
PROGRAM:	PADS POWER LOGIC 2004
REV:	C
DATE:	06/17/2008
DRN:	Jim Williams
CHEK:	review panel
SCALE:	1:1
SHEET:	1 OF 1

1 2 3 4 5 6

ECO# INCLUDED ON THIS SCHEMATIC/REVISION	
ECO NO.	DESCRIPTION



SW1	SW2	SW3	SW4	Vol. OUT (V)	Tolerance
0	0	0	0	0	+/- 0.02V
0	0	0	1	0.5010	+/- 0.02V
0	0	1	0	1.009	+/- 0.02V
0	0	1	1	1.5010	+/- 0.02V
0	1	0	0	2.000	+/- 0.02V
0	1	0	1	2.5010	+/- 0.02V
0	1	1	0	3.001	+/- 0.02V
0	1	1	1	3.500	+/- 0.02V
1	0	0	0	4.010	+/- 0.02V
1	0	0	1	4.501	+/- 0.02V
1	0	1	0	5.000	+/- 0.02V
1	0	1	1	5.510	+/- 0.02V
1	1	0	0	6.010	+/- 0.02V
1	1	0	1	6.510	+/- 0.02V
1	1	1	0	7.010	+/- 0.02V
1	1	1	1	7.510	+/- 0.02V

LINE 6

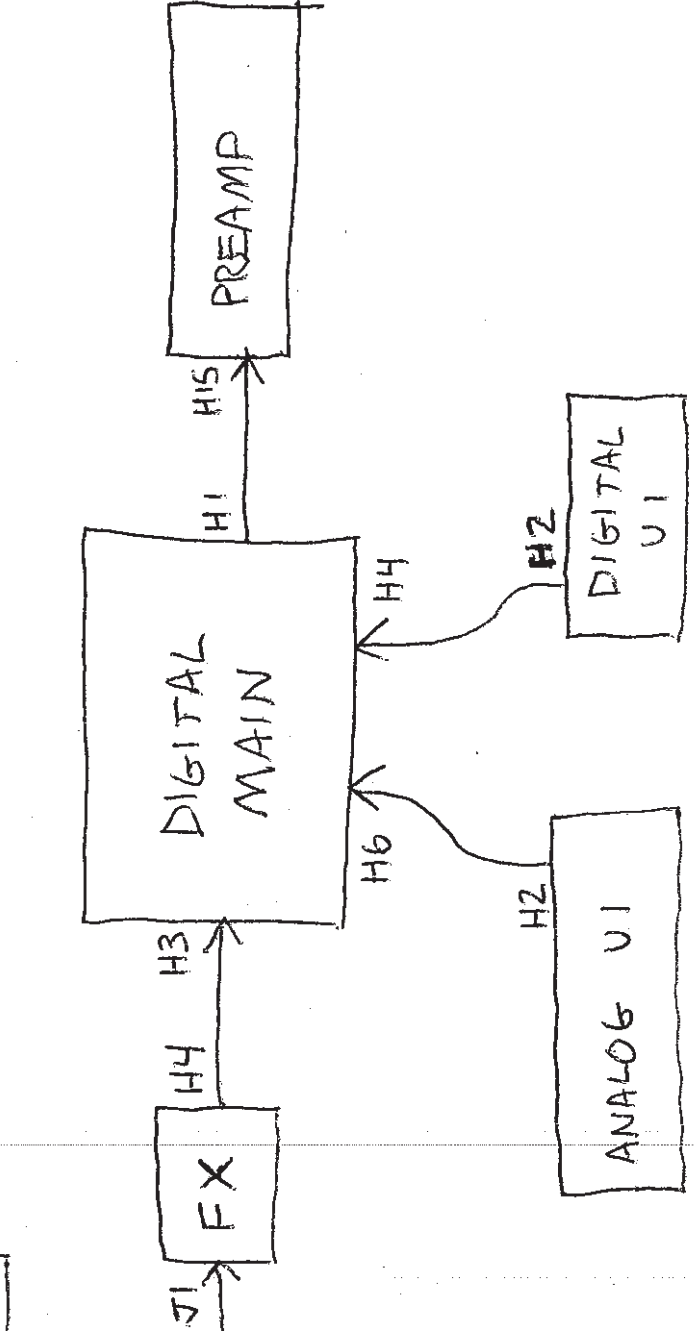
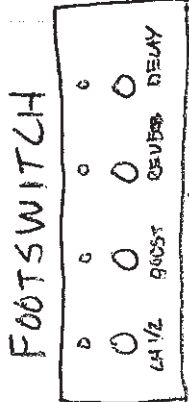
A16 FOOT SWITCH
35-00-0046

COMPANY: LINE 6
TITLE: A16 FOOT SWITCH
PROGRAM: PADS POWER LOGIC 2004
FILENAME: A
DATE: 03/25/2008
DRAWN: WEI ZHONG
CHECKED: REVIEW PANEL
SCALE: 1:1
SIZE: C
PART NUMBER:
SHEET: 1

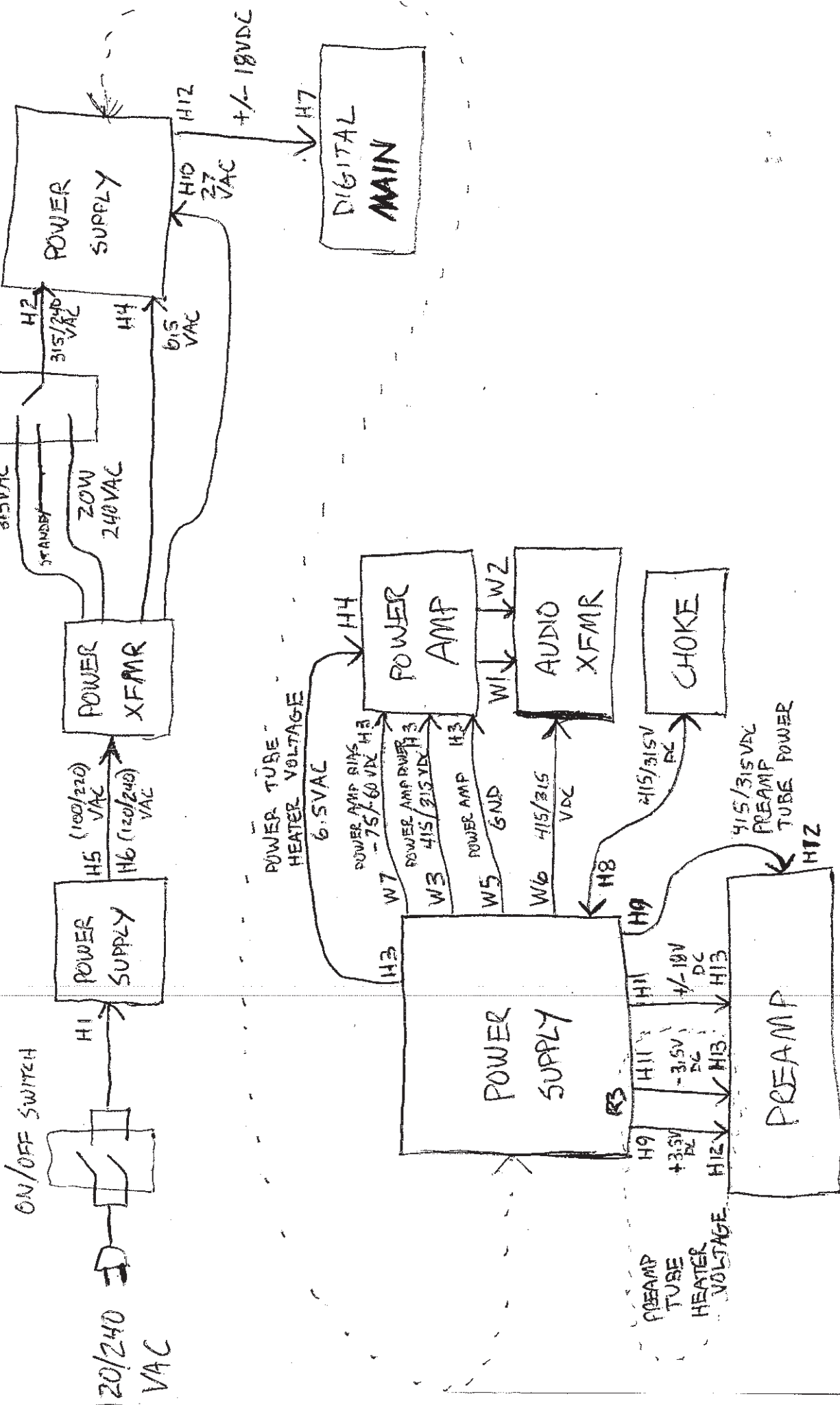
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AV CALI CONTROLS

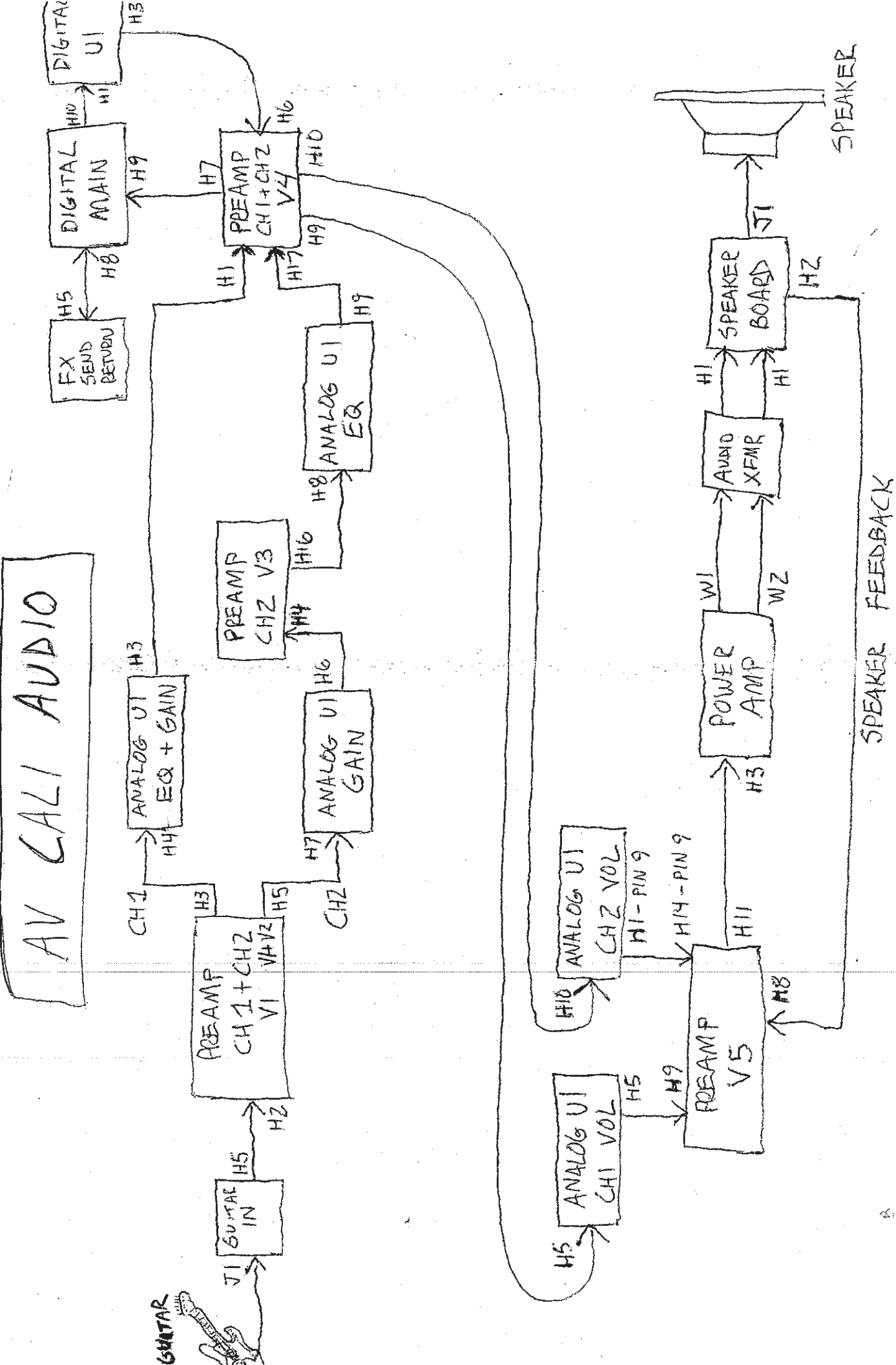
CHANNEL 1, 2, BOOST, REVERB, DELAY
TAP



AV CALI POWER



AV CALI AUDIO



99-011-0305 Alchemist 112 Packout BOM			
Part Number	Description	Qty	Reference Designator(s)
21-34-0118-1	CBL XLR-XLR 3 PIN 24AWG 5.3MM X 5486MM STRND A16	1	
21-37-1160	CBL PWR UL/CSA SJT 8.2FT BLK E L-302 w/GND EL70	1	
40-00-0172	MANUAL USER ALCHEMIST A16	1	
40-10-0211	ENDCAP FOAM SHIPPING TOP SV COMBO A15	4	
40-10-0212	ENDCAP FOAM SHIPPING BOTTOM SV COMBO A15	4	
40-10-0226	NOT USED AT THIS TIME	1	
40-10-0229	CARTON GIFT ALCHEMIST A16-1	1	
40-15-0022	SILICA GEL PACK 3.0" x 3.5"	3	
40-15-0023	ANTISEPTIC PACK (5g/package)	1	
40-20-0011	BAG PLASTIC 10 x 16 2 mil	1	
40-20-0024	BAG PLASTIC xx" W x xx" H CLEAR 4 MIL A16-1	1	
59-00-0280-1	ASSY UNIT COMPLETE AV 112 A16-1 US 120V	1	
99-011-0405 Alchemist 212 Packout BOM			
Part Number	Description	Qty	Reference Designator(s)
21-34-0118-1	CBL XLR-XLR 3 PIN 24AWG 5.3MM X 5486MM STRND A16	1	
21-37-1160	CBL PWR UL/CSA SJT 8.2FT BLK E L-302 w/GND EL70	1	
30-48-0005	CASTER PLUG IN 2" A15	4	
40-00-0172	MANUAL USER ALCHEMIST A16	1	
40-10-0211	ENDCAP FOAM SHIPPING TOP SV COMBO A15	4	
40-10-0212	ENDCAP FOAM SHIPPING BOTTOM SV COMBO A15	4	
40-10-0227	NOT USED AT THIS TIME	1	
40-10-0230	CARTON GIFT ALCHEMIST A16-2	1	
40-15-0022	SILICA GEL PACK 3.0" x 3.5"	3	
40-15-0023	ANTISEPTIC PACK (5g/package)	1	
40-20-0011	BAG PLASTIC 10 x 16 2 mil	1	
40-20-0025	BAG PLASTIC xx" W x xx" H CLEAR 4 MIL A16-2	1	
59-00-0290-1	ASSY UNIT COMPLETE AV 212 A16-2 US 120V	1	
99-021-0215 Alchemist HD Packout BOM			
Part Number	Description	Qty	Reference Designator(s)
21-34-0118-1	CBL XLR-XLR 3 PIN 24AWG 5.3MM X 5486MM STRND A16	1	
21-37-1160	CBL PWR UL/CSA SJT 8.2FT BLK E L-302 w/GND EL70	1	
40-00-0172	MANUAL USER ALCHEMIST A16	1	
40-10-0211	ENDCAP FOAM SHIPPING TOP SV COMBO A15	4	
40-10-0212	ENDCAP FOAM SHIPPING BOTTOM SV COMBO A15	4	
40-10-0228	NOT USED AT THIS TIME	1	
40-10-0231	CARTON GIFT ALCHEMIST A16-3	1	
40-15-0022	SILICA GEL PACK 3.0" x 3.5"	3	
40-15-0023	ANTISEPTIC PACK (5g/package)	1	
40-20-0011	BAG PLASTIC 10 x 16 2 mil	1	
40-20-0026	BAG PLASTIC xx" W x xx" H CLEAR 4 MIL A16-3	1	
59-00-1807	ASSY UNIT COMPLETE FOOTSWITCH AV COMBO A16	1	
99-00-0280-1 Alchemist 112 Complete Unit BOM			
Part Number	Description	Qty	Reference Designator(s)
11-20-1004	SPEAKER 1.2" 8 OHM CELESTION VINTAGE 30 T3903A	1	
21-34-0098-3	CBL 1/4" RT ANGLE TO DUAL .205 12.5" 18AWG QUICK CONNECT	1	
30-00-0033	SCREW 10-24 x7/8 TRUSS HD PHH BLK	4	
30-00-0072	SCREW WOOD #10 x 1-1/4" OVAL H D PB	10	
30-00-1130	SCREW 10-32 x 4" OVAL CTSK PB STL	4	
30-03-0035	WASHER #10 SPLIT LK WASH ZINC	4	

30-03-0112	WASHER FINISHING #10 FLANGED STL BLK OXIDE	14	
30-03-1010	WASHER #10 FLAT .20-.25 ID, .45-.55 OD, .04-.05 THK ZINC	4	
40-25-0030	LABEL ETL KWANASIA 2"x 1"	1	
40-25-0100	LABEL BAR CODE SERIAL NUMBER 4-PANEL LABEL	1	
50-03-0053	ASSY CABINET 112 AV/CALI A16-1	1	
30-00-0121	SCREW WOOD #6 x 1.25 PHH FLH BLK	10	
30-00-0122	SCREW 10-24 x 0.7 OVH PHILLIPS NI PLD / CRM	4	
30-00-0138	SCREW WOOD #6 x 1/2" FHP BLACK OXIDE	5	
30-00-0141	SCREW 6-32 x 1.25 w/LK WASH PHP STL BLK OXIDE	2	
30-00-6839	SCREW WOOD 10-12 x 7/8" PPZ	4	
30-03-0806	WASHER #8 0.600 OD x 0.190 ID 0.040 STL BLK OXIDE	2	
30-06-1024	NUT-T 10-24 X 5/16 STEEL	8	
30-27-0315	PIPING AV AMPS (A16)	1	
30-36-0011	COVER VINYL AV/CALI A16	1	
30-39-0025	GRILL CLOTH AV/CALI A16	1	
30-51-0333	LOGO BOGNER 7.0 X 2.9 X .7 CAS T ALUMINUM BRUSHED A16	1	
30-51-0348	TRIM U/I 21.8 x 2.7 x 0.7 BRUS HED ALUM BLK A16	1	
30-57-0001	HANDLE CABINET PVC BLACK W/CHROME BRACKETS	1	
30-75-0008	RUBBER FOOT 1.50" I.D. X .75"H BLACK	4	
50-04-0290-1	ASSY E/M GHASSIS AV/CALI A16 U S 120V	1	
59-00-0290-1 Alchemist 212 Complete Unit Assembly BOM			
Part Number	Description	Qty	Reference Designator(s)
11-20-0101	SPEAKER 12" 16 OHM CELESTION G12M GREENBACK 25 WATTS	1	
11-20-0102	SPEAKER 12" 16 OHM CELESTION G12H 30 WATTS	1	
21-34-0098-4	CBL 1/4" RT ANGLE TO DUAL .205 15.5" 18AWG QUICK CONNECT	1	
21-36-0266-2	CBL 2 COND 18AWG TWISTED 15.3" .205 SPADE-FM x 4 BL/WH	1	
30-00-0033	SCREW 10-24 x7/8 TRUSS HD PHH BLK	8	
30-00-0072	SCREW WOOD #10 x 1-1/4" OVAL H D PB	10	
30-00-1130	SCREW 10-32 x 4" OVAL CTSK PB STL	4	
30-03-0035	WASHER #10 SPLIT LK WASH ZINC	8	
30-03-0112	WASHER FINISHING #10 FLANGED STL BLK OXIDE	14	
30-03-1010	WASHER #10 FLAT .20-.25 ID, .45-.55 OD, .04-.05 THK ZINC	8	
40-25-0030	LABEL ETL KWANASIA 2"x 1"	1	
40-25-0100	LABEL BAR CODE SERIAL NUMBER 4-PANEL LABEL	1	
59-00-0300-1 Alchemist HD Complete Unit BOM			
Part Number	Description	Qty	Reference Designator(s)
59-00-0300-1	ASSY UNIT COMPLETE AV HD A16-3 US 120V	1	
30-00-0858	SCREW #8 x 5/8IN PHIL-TRUSS BLACK w/WAX	5	
30-00-1130	SCREW 10-32 x 4" OVAL CTSK PB STL	4	
30-03-0112	WASHER FINISHING #10 FLANGED STL BLK OXIDE	4	
30-51-0350	PANEL BACK MESH 24.0 x 6.1 x .3 BLK POWDER COAT A16-3	1	
30-48-0010	FOOT RUBBER w/ADHESIVE 3M BUMPON SJ-5012 (OR EQUIV)	2	
40-25-0100	LABEL BAR CODE SERIAL NUMBER 4-PANEL LABEL	1	
40-25-0030	LABEL ETL KWANASIA 2"x 1"	1	
50-03-0052	ASSY CABINET HEAD AV/CALI A16- 3	1	
30-00-0024	SCREW WD #8 x 1-1/8IN PPB STL	4	
30-00-0122	SCREW 10-24 x 0.7 OVH PHILLIPS NI PLD / CRM	4	
30-00-0138	SCREW WOOD #6 x 1/2" FHP BLACK OXIDE	5	
30-00-0141	SCREW 6-32 x 1.25 w/LK WASH PHP STL BLK OXIDE	2	
30-00-0858	SCREW #8 x 5/8IN PHIL-TRUSS BLACK w/WAX	4	
30-03-0806	WASHER #8 0.600 OD x 0.190 ID 0.040 STL BLK OXIDE	2	

30-06-1024	NUT-T 10-24 X 5/16 STEEL	4	
30-27-0315	PIPING AV AMPS (A16)	1	
30-36-0011	COVER VINYL AV/CALI A16	1	
30-39-0025	GRILL CLOTH AV/CALI A16	1	
30-51-0333	LOGO BOGNER 7.0 X 2.9 X .7 CAS T ALUMINUM BRUSHED A16	1	
30-51-0348	TRIM U/I 21.8 x 2.7 x 0.7 BRUS HED ALUM BLK A16	1	
30-57-0001	HANDLE CABINET PVC BLACK W/CHROME BRACKETS	1	
30-75-0008	RUBBER FOOT 1.50" I.D. X .75"H BLACK	4	
50-04-0290-1	ASSY E/M CHASSIS AV/CALI A16 U S 120V	1	
50-04-0290-1	Alchemist 112 Chassis Assembly BOM		
Part Number	Description	Qty	Reference Designator(s)
11-02-0011	VALVE ELECTRO-HARMONIX 12AX7EH (LOW MICROPHONIC)	3	
11-02-0020	VALVE RUBY TUBES 12AX7	2	
11-02-0022	VALVE RUBY TUBES 6L6GCMSTR MATCHED PAIR	1	
11-30-0033	XFMR 100/120VAC 330/240/13.5k2 /6.5 AV A16 W/ 2 GROMMETS	1	
11-33-1105	XFMR OUTPUT ALL VALVE A16 50 Watts 8-4-2 Ohm W/2 GROMMETS	1	
11-33-1201	XFMR AUDIO CHOKE 5 Henry @1KHz 1V 0mA	1	
21-18-0008	TUBE SHIELD #1-2.5-50	2	
21-29-0007	WIRE 18AWG FSTN .187 2/250 14"/3.5" WHITE	1	
21-29-0008-1	WIRE 2-PIN/1COND 26AWG 2mm F-F 3" INSUL STRANDED Z-TYPE WHITE	1	
21-34-0013	CBL SIL 5 COND 26AWG 2 x 50.8M M F-F	1	
21-34-0076-4	CBL SIL 2 COND 26AWG 2MM x 4.0 " JST PHR-2 BLUE	1	
21-34-0087-1	CBL ASSY 10 COND 26AWG F/F x 5 .0" WHITE	1	
21-34-0095-1	CBL SIL 3 COND 18AWG 3 PIN 3.0" x .156" PITCH WHITE	1	
21-34-0099-1	CBL ASSY 4 PIN SIL 4 COND 18" 26 AWG SHLD	1	
21-34-0103-1	CBL SIL 3 COND 26AWG 2MM 20" F-F WHITE	1	
21-34-0104-1	CBL SIL 3-PIN/2 COND 16AWG 3.96 4" TWSTED F-F RD/WH LKG	2	
21-34-0104-2	CBL SIL 3-PIN/2 COND 16AWG 3.96 18.5" TWSTD F-F RD/WH LKG	1	
21-34-0105-1	CBL SIL 9-PIN/5 COND 18AWG 3.96 3" WHITE LOCKING	1	
21-34-0107-1	CBL SIL 3 COND 26AWG SHLD 2mm 7" F-F	1	
21-34-0108-1	CBL SIL 2 COND SHLD 3.96mm 4.25" F-F BLK	2	
21-34-0108-2	CBL SIL 2 COND SHLD 3.96mm 6" F-F BLK	1	
21-34-0108-3	CBL SIL 2 COND SHLD 3.96mm 9" F-F BLK	4	
21-34-0114-1	CBL ASSY 2 PIN SIL 9.0" 26 AWG SHLD	1	
21-34-0114-2	CBL ASSY 2 PIN SIL 14.0" 26AWG SHLD	1	
21-34-0135-4	CBL ASSY 18AWG 3 PIN SIL 12" x 12" x .250 RCPT RED/WHITE	1	
21-34-0135-5	CBL ASSY 18AWG 3 PIN SIL 12" x 12" x .250 RCPT WHITE/BLK	1	
21-34-1022	CBL FSTN .187-RCPT x 2 1-COND 178MM STRAND 18AWG BK	1	
21-34-1023-1	CBL FSTN .205-RCPT/250-RCPT 1-COND 18AWG 8" BLK	1	
21-34-1023-2	CBL FSTN .205-RCPT/250-RCPT 1-COND 18AWG 8" WHT	1	
21-48-0004	HOLDER FUSE PANEL MOUNT SHOCK SAFE 500V	1	
21-48-0005	FUSE CAP No. 816 FOR 6.3 x 32M M	1	
24-03-0004	SWITCH TOGGLE DPST ON-OFF 250V 10A QUICK TERMINAL PNL MNT	1	
24-03-0014	SWITCH TOGGLE DPDT ON-OFF-ON 250V 10A QUICK TERMINL PNL MT	1	
24-19-0005	FUSE 0.5A 250V SLOW BLOW 3AG	1	
24-19-0250	FUSE 2.5A 250V 5MM x 20MM	1	
30-00-0042	SCREW SHEET METAL 4 x 0.375 IN SELF-TAP PPB	2	
30-00-0043	SCREW 6-32 x 5/16 W/LK WASH PPZ STL	28	
30-00-0125	SCREW 8-32 x 5/16 W/LK WASH PP H BLK STL	6	
30-00-0128	SCREW 6-32 x .375 W/LK WASH PP H BLK	2	
30-00-0132	SCREW 10-32 x .375 PPH W/LK WA SH BLACK OXIDE	8	

30-00-0137	SCREW 4-40 x .3125 w/LK WASH PAN HD PHIL BLK	4	
30-15-0041	SPACER .11 THICK x .630D ABS B LK	6	
30-15-0042	SPACER .75 OD x .50 ID x .17 HT ABS BLK	4	
30-21-0005	RETAINER TUBE EL34 STYLE	2	
30-24-0030	CABLE TIE 4.0" LONG BLACK	18	
30-27-0059	LENS LED .19" DIA x .29" HT PLASTIC CLEAR SNAP IN	3	
30-27-0314	GUIDE SCREW 2.9 x 1.2 x 0.6 AB 5 BLK A16	4	
30-27-0316	SPRT DUAL LKG CKT BD TEARDROP .500 LG 6/6 NYLON NAT	2	
30-42-0055	OVERLAY FRONT 22.5 x 2.75 x .060 CLEAR POLYCARBONATE A16	1	
41-00-0178	ARTWORK SILKSCREEN OVERLAY UI AV/CALI A16	1	
30-45-0021	KNOB 0.88 DIA x 0.5 HIGH ALUMI NUM A16	10	
30-45-0022	KNOB 0.76 DIA x 0.46 HIGH ALUMI NUM A16	4	
30-51-0330	CHASSIS 22.5 x 8.5 x 2.75 STEEL A16	1	
41-00-0181	ARTWORK SILKSCREEN CHASSIS REAR AV CALI A16	1	
30-51-0331	TUBE CAGE 6.6 x 4.1 x 2.3 ALUM BLK A16	1	
30-75-9600	GROMMET RUBBER 7/16-D x 1/16 GRV x 3/4" GRV-DIA BLACK	1	
50-00-0001	ASSY RECEPTACLE-A/C w/GND WIRE SNAP-IN	1	
50-04-0290-1	Alchemist 212 Chassis Assembly BOM		
Part Number	Description	Qty	Reference Designator(s)
50-04-0290-1	ASSY E/M CHASSIS AV/CALI A16 U S 120V	1	
11-02-0011	VALVE ELECTRO-HARMONIX 12AX7EH (LOW MICROPHONIC)	3	
11-02-0020	VALVE RUBY TUBES 12AX7	2	
11-02-0022	VALVE RUBY TUBES 6L6GCMSTR MATCHED PAIR	1	
11-30-0033	XFMR 100/120VAC 330/240/13.5x2 /6.5 AV A16 W/ 2 GROMMETS	1	
11-33-1105	XFMR OUTPUT ALL VALVE A16 50 Watts 8-4-2 Ohm W/2 GROMMETS	1	
11-33-1201	XFMR AUDIO CHOKE 5 Henry @1KHz 1V 0mA	1	
21-18-0008	TUBE SHIELD #1-2.5-50	2	
21-29-0007	WIRE 18AWG FSTN .187 2/ 250 14"/3.5" WHITE	1	
21-29-0008-1	WIRE 2-PIN/1COND 26AWG 2mm F-F 3" INSUL STRANDED 2-TYPE WHITE	1	
21-34-0013	CBL SIL 5 COND 26AWG 2 x 50.8MM F-F	1	
21-34-0076-4	CBL SIL 2 COND 26AWG 2MM x 4.0 " JST PHR-2 BLUE	1	
21-34-0087-1	CBL ASSY 10 COND 26AWG F/F x 5.0" WHITE	1	
21-34-0095-1	CBL SIL 3 COND 18AWG 3 PIN 3.0" x .156" PITCH WHITE	1	
21-34-0099-1	CBL ASSY 4 PIN SIL 4 COND 18" 26 AWG SHLD	1	
21-34-0103-1	CBL SIL 3 COND 26AWG 2MM 20" F-F WHITE	1	
21-34-0104-1	CBL SIL 3-PIN/2 COND 16AWG 3.96 4" TWSTED F-F RD/WH LKG	2	
21-34-0104-2	CBL SIL 3-PIN/2 COND 16AWG 3.96 4" TWSTED F-F RD/WH LKG	1	
21-34-0105-1	CBL SIL 9-PIN/5 COND 18AWG 3.96 3" WHITE LOCKING	1	
21-34-0107-1	CBL SIL 3 COND 26AWG SHLD 2mm 7" F-F	1	
21-34-0108-1	CBL SIL 2 COND SHLD 3.96mm 4.25" F-F BLK	2	
21-34-0108-2	CBL SIL 2 COND SHLD 3.96mm 6" F-F BLK	1	
21-34-0108-3	CBL SIL 2 COND SHLD 3.96mm 9" F-F BLK	4	
21-34-0114-1	CBL ASSY 2 PIN SIL 9.0" 26 AWG SHLD	1	
21-34-0114-2	CBL ASSY 2 PIN SIL 14.0" 26AWG SHLD	1	
21-34-0135-4	CBL ASSY 18AWG 3 PIN SIL 12" x 12" x .250 RCPT RED/WHITE	1	
21-34-0135-5	CBL ASSY 18AWG 3 PIN SIL 12" x 12" x .250 RCPT WHITE/BLK	1	
21-34-1022	CBL FSTN .187-RCPT x 2 1-COND 178MM STRAND 18AWG BK	1	
21-34-1023-1	CBL FSTN .205-RCPT/.250-RCPT 1-COND 18AWG 8" BLK	1	
21-34-1023-2	CBL FSTN .205-RCPT/.250-RCPT 1-COND 18AWG 8" WHT	1	
21-48-0004	HOLDER FUSE PANEL MOUNT SHOCK SAFE 500V	1	
21-48-0005	FUSE CAP No. 816 FOR 6.3 x 32M M	1	

24-03-0004	SWITCH TOGGLE DPST ON-OFF 250V 10A QUICK TERMINAL PNL MNT	1	
24-03-0014	SWITCH TOGGLE DPDT ON-OFF-ON 250V 10A QUICK TERMINL PNL MT	1	
24-19-0005	FUSE 0.5A 250V SLOW BLOW 3AG	1	
24-19-0250	FUSE 2.5A 250V 5MM x 20MM	1	
30-00-0042	SCREW SHEET METAL 4 x 0.375 IN SELF-TAP PPB	2	
30-00-0043	SCREW 6-32 x 5/16 w/LK WASH PPZ STL	28	
30-00-0125	SCREW 8-32 x 5/16 w/LK WASH PP H BLK STL	6	
30-00-0128	SCREW 6-32 x .375 w/LK WASH PP H BLK	2	
30-00-0132	SCREW 10-32 x .375 PPH w/LK WA SH BLACK OXIDE	8	
30-00-0137	SCREW 4-40 x .3125 w/LK WASH PAN HD PHIL BLK	4	
30-15-0041	SPACER .11 THICK x .630D ABS B LK	6	
30-15-0042	SPACER .75 OD x .50 ID x .17 HT ABS BLK	4	
30-21-0005	RETAINER TUBE EL34 STYLE	2	
30-24-0030	CABLE TIE 4.0" LONG BLACK	18	
30-27-0059	LENS LED .19" DIA x .29" HT PLASTIC CLEAR SNAP IN	3	
30-27-0314	GUIDE SCREW 2.9 x 1.2 x 0.6 AB S BLK A16	4	
30-27-0316	SPRT DUAL LKG CKT BD TEARDROP .500 LG 6/6 NYLON NAT	2	
30-42-0055	OVERLAY FRONT 22.5 x 2.75 x .060 CLEAR POLYCARBONATE A16	1	
41-00-0178	ARTWORK SILKSCREEN OVERLAY UJ AV/CALI A16	1	
30-45-0021	KNOB 0.88 DIA x 0.5 HIGH ALUMI NUM A16	10	
30-45-0022	KNOB 0.76 DIA x 0.46 HIGH ALUMI NUM A16	4	
30-51-0330	CHASSIS 22.5 x 8.5 x 2.75 STEEL A16	1	
41-00-0181	ARTWORK SILKSCREEN CHASSIS REAR AV CALI A16	1	
30-51-0331	TUBE CAGE 6.6 x 4.1 x 2.3 ALUM BLK A16	1	
30-75-9600	GROMMET RUBBER 7/16-D x 1/16 GRV x 3/4" GRV-DIA BLACK	1	
50-04-0290-1	Alchemist HD Chassis BOM		
Part Number	Description	Qty	Reference Designator(s)
11-02-0011	VALVE ELECTRO-HARMONIX 12AX7EH (LOW MICROPHONIC)	3	
11-02-0020	VALVE RUBY TUBES 12AX7	2	
11-02-0022	VALVE RUBY TUBES 6L6GCMSTR MATCHED PAIR	1	
11-30-0033	XFMR 100/120VAC 330/240/13.5x2/6.5 AV A16 W/ 2 GROMMETS	1	
11-33-1105	XFMR OUTPUT ALL VALVE A16 50 Watts 8-4-2 Ohm W/2 GROMMETS	1	
11-33-1201	XFMR AUDIO CHOKE 5 Henry @1KHz 1V 0mA	1	
21-18-0008	TUBE SHIELD #1-2.5-50	2	
21-29-0007	WIRE 18AWG FSTN .187 2/.250 14"/3.5" WHITE	1	
21-29-0008-1	WIRE 2-PIN/1COND 26AWG 2mm F-F 3" INSUL STRANDED Z-TYPE WHITE	1	
21-34-0013	CBL SIL 5 COND 26AWG 2 x 50.8M M F-F	1	
21-34-0076-4	CBL SIL 2 COND 26AWG 2MM x 4.0" JST PHR-2 BLUE	1	
21-34-0087-1	CBL ASSY 10 COND 26AWG F/F x 5.0" WHITE	1	
21-34-0095-1	CBL SIL 3 COND 18AWG 3 PIN 3.0" x .156" PITCH WHITE	1	
21-34-0099-1	CBL ASSY 4 PIN SIL 4 COND 18" 26 AWG SHLD	1	
21-34-0103-1	CBL SIL 3 COND 26AWG 2MM 20" F-F WHITE	1	
21-34-0104-1	CBL SIL 3-PIN/2 COND 16AWG 3.96 4" TWSTED F-F RD/WH LKG	2	
21-34-0104-2	CBL SIL 3-PIN/2 COND 16AWG 3.96 18.5" TWSTED F-F RD/WH LKG	1	
21-34-0105-1	CBL SIL 9-PIN/5 COND 18AWG 3.96 3" WHITE LOCKING	1	
21-34-0107-1	CBL SIL 3 COND 26AWG SHLD 2mm 7" F-F	1	
21-34-0108-1	CBL SIL 2 COND SHLD 3.96mm 4.25" F-F BLK	2	
21-34-0108-2	CBL SIL 2 COND SHLD 3.96mm 6" F-F BLK	1	
21-34-0108-3	CBL SIL 2 COND SHLD 3.96mm 9" F-F BLK	4	
21-34-0114-1	CBL ASSY 2 PIN SIL 9.0" 26 AWG SHLD	1	
21-34-0114-2	CBL ASSY 2 PIN SIL 14.0" 26AWG SHLD	1	

21-34-0135-4	CBL ASSY 18AWG 3 PIN SIL 12" x 12" x .250 RCPT RED/WHITE	1	
21-34-0135-5	CBL ASSY 18AWG 3 PIN SIL 12" x 12" x .250 RCPT WHITE/BLK	1	
21-34-1022	CBL FSTN .187-RCPT x 2 1-COND 178MM STRAND 18AWG BK	1	
21-34-1023-1	CBL FSTN .205-RCPT / .250-RCPT 1-COND 18AWG 8" BLK	1	
21-34-1023-2	CBL FSTN .205-RCPT / .250-RCPT 1-COND 18AWG 8" WHT	1	
21-48-0004	HOLDER FUSE PANEL MOUNT SHOCK SAFE 500V	1	
21-48-0005	FUSE CAP No. 816 FOR 6 x 32M M	1	
24-03-0004	SWITCH TOGGLE DPST ON-OFF 250V 10A QUICK TERMINAL PNL MNT	1	
24-03-0014	SWITCH TOGGLE DPDT ON-OFF-ON 250V 10A QUICK TERMINL PNL MT	1	
24-19-0005	FUSE 0.5A 250V SLOW BLOW 3AG	1	
24-19-0250	FUSE 2.5A 250V 5MM x 20MM	1	
30-00-0042	SCREW SHEET METAL 4 x 0.375 IN SELF-TAP PPB	2	
30-00-0043	SCREW 6-32 x 5/16 W/LK WASH PPZ STL	28	
30-00-0125	SCREW 8-32 x 5/16 W/LK WASH PP H BLK STL	6	
30-00-0128	SCREW 6-32 x .375 W/LK WASH PP H BLK	2	
30-00-0132	SCREW 10-32 x .375 PPH W/LK WA SH BLACK OXIDE	8	
30-00-0137	SCREW 4-40 x .3125 W/LK WASH PAN HD PHIL BLK	4	
30-15-0041	SPACER .11 THICK x .630D ABS B LK	6	
30-15-0042	SPACER .75 OD x .50 ID x .17 HT ABS BLK	4	
30-21-0005	RETAINER TUBE EL34 STYLE	2	
30-24-0030	CABLE TIE 4.0" LONG BLACK	18	
30-27-0059	LENS LED .19" DIA x .29" HT PLASTIC CLEAR SNAP IN	3	
30-27-0314	GUIDE SCREW 2.9 x 1.2 x 0.6 AB 5 BLK A16	4	
30-27-0316	SPRT DUAL LKG CKT BD TEARDROP .500 LG 6/6 NYLON NAT	2	
30-42-0055	OVERLAY FRONT 22.5 x 2.75 x .060 CLEAR POLYCARBONATE A16	1	
41-00-0178	ARTWORK SILKSCREEN OVERLAY UI AV/CALI A16	1	
30-45-0021	KNOB 0.88 DIA x 0.5 HIGH ALUMI INUM A16	10	
30-45-0022	KNOB 0.76 DIA x 0.46 HIGH ALUM INUM A16	4	
30-51-0330	CHASSIS 22.5 x 8.5 x 2.75 STEEL A16	1	
41-00-0181	ARTWORK SILKSCREEN CHASSIS REAR AV CALI A16	1	
30-51-0331	TUBE CAGE 6.6 x 4.1 x 2.3 ALUM BLK A16	1	
30-75-9600	GROMMET RUBBER 7/16-D x 1/16 GRV x 3/4" GRV-DIA BLACK	1	
50-00-0001	ASSY RECEPTACLE-A/C w/GND WIRE SNAP-IN	1	
50-00-0001	A/C Receptacle BOM		
Part Number	Description	Qty	Reference Designator(s)
21-14-0002	JACK IEC w/FUSE MALE 3 PIN PAN EL MOUNT SNAP IN VERT	1	
21-34-1116	CBL EARTHING w/EYELET 16AWG 5" GREEN w/YELLOW STRIPE	1	
50-02-0274	Alchemist Main PCB A BOM		
Part Number	Description	Qty	Reference Designator(s)
50-02-0274	PCBA MAIN ALL VALVE A16	1	
01-04-0181	RES 180R 5% 1206	2	R45-R46
01-23-0330	RES METAL OXIDE 33R 3W 5% TH STRAIGHT LEAD	2	R65-R66
01-24-1001	RES 1.00K 1% 0805	5	R30,R54,R56,R58,R60
01-24-1002	RES 10.0K 1% 0805	2	R14,R29
01-24-1003	RES 100K 1% 0805	4	R19-R20,R26-R27
01-24-1004	RES 1.00M 1% 0805	2	R15-R16
01-24-10R0	RES 10.0R 1% 0805	2	R11,R64
01-24-1501	RES 1.50K 1% 0805	1	R21
01-24-1502	RES 15.0K 1% 0805	1	R31
01-24-2001	RES 2.00K 1% 0805	1	R18
01-24-22R1	RES 22.1R 1% 0805	4	R17,R24,R50,R53

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01-24-3321	RES 3.32K 1% 0805	4	R33,R35-R36,R38
01-24-4751	RES 4.75K 1% 0805	3	R1,R5,R61
01-24-4752	RES 47.5K 1% 0805	1	R9
01-24-4990	RES 499R 1% 0805	1	R25
01-24-4991	RES 4.99K 1% 0805	1	R28
01-24-5R11	RES 5.11R 1% 0805	2	R62-R63
01-24-7500	RES 750R 1% 0805	2	R32,R34
01-25-0000	RES 0R 1% 0603	1	R23
01-25-1001	RES 1.00K 1% 0603	3	R4,R6,R49
01-25-1002	RES 10.0K 1% 0603	4	R3,R10,R12-R13
01-25-2001	RES 2.00K 1% 0603	8	R22,R37,R39-R44
01-25-20R0	RES 20.0R 1% 0603	1	R59
01-25-4121	RES 4.12K 1% 0603	1	R47
01-25-4751	RES 4.75K 1% 0603	1	R2
01-25-47R5	RES 47.5R 1% 0603	6	R7-R8,R51,R55,R57,R68
01-25-5901	RES 5.90K 1% 0603	1	R52
01-25-6812	RES 68.1K 1% 0603	2	R48,R67
03-10-6108	CAP ELEC 1000uF 6.3V 20% RADIAL 8/11.5/5	2	C39,C53
03-12-1476	CAP ELEC 47uF 16V 20% RADIAL 5/7/5	1	C42
03-18-0105	CAP ELEC 1uF 50V 20% RADIAL 5/11/5	2	C47,C56
03-18-0106	CAP ELEC 10uF 50V 20% RADIAL 5/11/5	18	C36-C38,C40,C44,C46,C49-C51,C54-C55,C58-C61,C63-C65
03-50-0100	CAP NPO 10pF 50V 5% 0805	1	C45
03-50-0101	CAP NPO 100pF 50V 5% 0805	2	C66-C67
03-50-0102	CAP NPO 1nF 50V 5% 0805	2	C18,C23
03-50-0272	CAP NPO 2.7nF 50V 5% 0805	2	C33-C34
03-50-0391	CAP NPO 390pF 50V 5% 0805	4	C25,C30-C32
03-52-0104	CAP X7R 0.1uF 50V 10% 0805	16	C1-C3,C6,C8-C9,C11-C16,C21,C26,C28,C35
03-52-0332	CAP X7R 3.3nF 50V 10% 0805	1	C17
03-52-0473	CAP X7R 47nF 50V 10% 0805	16	C19-C20,C22,C24,C27,C29,C41,C48,C52,C57,C62,C68-C70,C4 C10
03-58-0104	CAP X7R 0.1uF 25V 10% 0603	2	C5,C7
06-34-0031	DIODE SCHOTTKY DUAL 30V 200mA 5nS SOT-23 SM	2	D3-D4
09-00-4401	TRANS NPN SMALL SIGNAL 2N4401 TH	2	D5-D6
12-00-7808	IC REG +8V 1A TO-220 TH	2	Q1-Q2
12-02-0115	IC REG -15V 1.5AMP TO-220F TH	1	U10
12-02-1086	IC REG +3.3V TO-220 TH	1	U13
12-02-7805	IC REG +5V 1.5 AMP TH	1	U9
12-02-7815	IC REG +15V 1AMP TO-220 TH	1	U11
12-54-0072	IC OP AMP DUAL TL072 SM	1	U14
12-54-0084	IC OP AMP QUAD TL084CD SM	2	U1,U5
12-64-4528	IC CONVERTER 24BIT 96KHz AUDIO CODEC AK4528 SM	2	U2-U3
15-72-0002	IC SRAM 512K x 8 BIT TSOP32 SM	1	U12
15-86-6362	IC DSP 24 BIT AUDIO DSP56362 TQFP-144 SM	1	U6
21-18-0002	TERMINAL SCREW PCB MOUNT RIGHT ANGLE SNAP-IN 6-32 THREAD	1	U8
21-20-0202	HDR SIL PCB-MT 2 PIN x 2MM MALE SHRD VERT MT TH	2	IM3-IM4
21-20-0203	HDR SIL PCB-MT 3 PIN x 2MM MALE SHRD VERT MT TH	2	H1,H9
21-20-0204	HDR SIL PCB-MT 4 PIN x 2MM MALE SHRD VERT MT TH	1	H3
21-20-0205	HDR SIL PCB-MT 5 PIN x 2MM MALE SHRD VERT MT TH	1	H8
21-20-0206	HDR SIL PCB-MT 6 PIN x 2MM MALE SHRD VERT MT TH	2	H5-H6
21-20-0210	HDR SIL PCB-MT 10 PIN x 2MM MA LE SHRD VERT MINT TH	1	H2
21-20-1563	HDR SIL PCB-MT 3 PIN x 3.96MM MALE VERT MINT FRIC LOCK	1	H10
			H7

21-20-2010	HDR DIL PCB-MT 10 PIN 2 x 5 x 100 MALE SHRD VERT	1	H4
35-00-0274	PCB MAIN ALL VALVE A16	1	
45-01-0037	IC PROGRAMMED MCU/FLASH V1.00 C/S 0X5D4FE8CA AV CALI A16	1	U7
15-84-0936	IC MCU 16KB FLASH P89LP0936 TS SOP-28 SM	1	U7
45-02-0045	IC PROGRAMMED FLASH YX-XX C/S 0XXXXXXXXX AV COMBO A16	1	U4
15-78-0005	IC FLASH 512kb SPI SERIAL SOIC-8 SM	1	U4
50-02-0275-1 Alchemist Speaker Out PCB A BOM			
Part Number	Description	Qty	Reference Designator(s)
50-02-0275-1	PCBA SPEAKER OUT ALL VALVE A16	1	
01-23-2700	RES WIREWOUND 270R 5W 5% TH	1	R2
03-58-0104	CAP X7R 0.1uF 25V 10% 0603	3	C1-C3
21-00-6617	JACK 1/4" TRS PCB MOUNT 6 PIN HORIZONTAL W/CHROME HRDWARE TH	3	J2-J4
21-20-3122	HDR SIL PCB-MT 2 PIN x 7.92MM MALE VERT MNT FRIC LOCK	1	H2
21-20-3124	HDR SIL PCB-MT 4 PIN x 7.92MM MALE VERT MNT FRIC LOCK	1	H1
30-18-3030	CLIP GROUND PCB .30 x .30 x .07	3	GF1-GF3
35-00-0275-1	PCB SPEAKER OUT ALL VALVE A16	1	
50-02-0275-2 Alchemist XLR Input - FX Send/RETURN PCB A BOM			
Part Number	Description	Qty	Reference Designator(s)
50-02-0275-2	PCBA XLR INPUT - FX SEND/RETU RN ALL VALVE A16	1	
01-49-0015	POT DUAL 100KA AUDIO TAPER 15M M TH	1	R1
03-52-0104	CAP X7R 0.1uF 50V 10% 0805	2	C4-C5
03-58-0104	CAP X7R 0.1uF 25V 10% 0603	5	C7-C11
04-05-0004	FERRITE BEAD 400mA 1500 OMH 0805	1	L4
11-10-2012	FERRITE BEAD 600R @ 100MHz 300 mA 0805 SM	6	L1-L3,L5-L7
21-00-6617	JACK 1/4" TRS PCB MOUNT 6 PIN HORIZONTAL W/CHROME HRDWARE TH	2	J5-J6
21-08-0002	JACK XLR FEMALE PCB MOUNT RT ANGLE W/NO RELEASE TAB TH	1	J1
21-20-0203	HDR SIL PCB-MT 3 PIN x 2MM MALE SHRD VERT.MT TH	1	H4
21-20-0204	HDR SIL PCB-MT 4 PIN x 2MM MALE SHRD VERT.MT TH	1	H5
30-18-3030	CLIP GROUND PCB .30 x .30 x .07	3	GF4-GF6
35-00-0275-2	PCB XLR INPUT - FX SEND/RETURN ALL VALVE A16	1	
50-02-0275-3	PCBA GUITAR INPUT ALL VALVE A16	1	
03-52-0104	CAP X7R 0.1uF 50V 10% 0805	1	C6
11-10-2020	CHOKE WIDE BAND 1-5 TURNS	1	L8
21-00-6617	JACK 1/4" TRS PCB MOUNT 6 PIN HORIZONTAL W/CHROME HRDWARE TH	1	J7
21-20-0202	HDR SIL PCB-MT 2 PIN x 2MM MALE SHRD VERT.MT TH	1	H6
30-18-3030	CLIP GROUND PCB .30 x .30 x .07	1	GF7
30-51-0146	SHIELD PCB MT FOR 1/4 JACK 1.00 Hx1.25Wx.013THK BERYL COP	1	SH1
35-00-0275-3	PCB GUITAR INPUT ALL VALVE A16	1	
50-02-0276 Alchemist UI Digital Section PCB A BOM			
Part Number	Description	Qty	Reference Designator(s)
50-02-0276	PCBA UI DIGITAL SECTION ALL VALVE A16	1	
01-24-1002	RES 10.0K 1% 0805	1	R8
01-24-1003	RES 100K 1% 0805	1	R5
01-24-2211	RES 2.21K 1% 0805	2	R19-R20
01-24-2432	RES 24.3K 1% 0805	1	R11
01-24-7500	RES 750R 1% 0805	1	R4
01-24-4752	RES 47.5K 1% 0805	2	R14-R15
01-25-2002	RES 20.0K 1% 0603	3	R9-R10,R17
01-25-4751	RES 4.75K 1% 0603	2	R12,R16
01-25-47R5	RES 47.5R 1% 0603	4	R6-R7,R13,R18
01-48-2254	POT SINGLE 250KB LINEAR 16MM D-SHAFT W-AXIS ANGLE TH	1	R2

03-10-0477	CAP ELEC 470uF 6.3V 20% RADIAL 6.3/11/5	1	C3
03-18-0106	CAP ELEC 10uF 50V 20% RADIAL 5/11/5	1	C6
03-52-0104	CAP X7R 0.1uF 50V 10% 0805	3	C1-C2,C4
03-52-0473	CAP X7R 47nF 50V 10% 0805	2	C5,C7
06-23-0054	DIODE SCHOTTKY DUAL 30V 200mA 5nS SOT-23 SM	2	D3-D4
06-34-0016	DIODE SWITCHING 75V 200mA 6nS SOT-23 SM	2	D1-D2
09-10-4401	TRANS NPN SMALL SIGNAL SOT-23 SM	1	Q1
11-10-2012	FERRITE BEAD 600R @ 100MHz 300 mA 0805 SM	4	L1-L4
12-54-0072	IC OP AMP DUAL TL072 SM	1	U1
21-20-0202	HDR SIL PCB-MT 2 PIN x 2MM MALE SHRD VERT MT TH	1	H3
21-20-0210	HDR SIL PCB-MT 10 PIN x 2MM MALE SHRD VERT MINT TH	1	H1
21-30-0004-1	CBL RIBBON SIL 10 COND 28AWG .100 5" Z-TYPE STAKED M-F	1	H2
24-03-0211	SWITCH TOGGLE DPDT 3 POS 20V 0.4VA 8P SNAP IN SEALED	2	
24-31-1105	SWITCH TACT 6MM SQ.4 PIN TH	1	SW1
30-27-0300-2	BUTTON 1.00 x .50 x .94 H ABS BLACK A16	1	
35-00-0276	PCB UI DIGITAL SECTION ALL VALVE A16 REV C	1	
01-49-0018	POT DUAL 10KA AUDIO TAPER 16MM D-SHAFT W-AXIS ANGLE TH	1	R1
01-48-0014	POT SINGLE 10KA AUDIO TAPER 16MM D-SHAFT TH W-AXIS ANGLE	1	R3

Alchemist Pre Amp PCB A BOM

Part Number	Description	Qty	Reference Designator(s)
50-02-0290	PCBA PRE AMP ALL VALVE A16	1	
01-12-0000	RES CARBON FILM OR 1/4W 5% TH	8	JMP1-JMP2,R41,R47-R48,R51,R73,R121
01-12-0101	RES CARBON FILM 100R 1/4W 5% TH	5	R44,R86,R95,R111-R112
01-12-0102	RES CARBON FILM 1K 1/4W 5% TH	1	R89
01-12-0103	RES CARBON FILM 10K 1/4W 5% TH	3	R56,R65,R81
01-12-0104	RES CARBON FILM 100K 1/4W 5% TH	4	R27,R31,R58,R88
01-12-0105	RES CARBON FILM 1M 1/4W 5% TH	8	R4,R15,R40,R59,R69,R79,R87,R108
01-12-0124	RES CARBON FILM 120K 1/4W 5% TH	2	R26,R109
01-12-0132	RES CARBON FILM 1.3K 1/4W 5% TH	1	R1
01-12-0151	RES CARBON FILM 150R 1/4W 5% TH	3	R29,R34,R120
01-12-0162	RES CARBON FILM 1.6K 1/4W 5% TH	5	R13-R14,R22,R53,R70
01-12-0182	RES CARBON FILM 1.8K 1/4W 5% TH	2	R25,R46
01-12-0184	RES CARBON FILM 180K 1/4W 5% TH	2	R10,R54
01-12-0223	RES CARBON FILM 22K 1/4W 5% TH	1	R2
01-12-0224	RES CARBON FILM 220K 1/4W 5% TH	5	R52,R57,R66,R75-R76
01-12-0226	RES CARBON FILM 22M 1/4W 5% TH	3	R97-R99
01-12-0243	RES CARBON FILM 24K 1/4W 5% TH	2	R38,R63
01-12-0303	RES CARBON FILM 30K 1/4W 5% TH	2	R16-R17
01-12-0330	RES CARBON FILM 33R 1/4W 5% TH	1	R19
01-12-0334	RES CARBON FILM 330K 1/4W 5% TH	3	R74,R83,R90
01-12-0335	RES CARBON FILM 3.3M 1/4W 5% TH	1	R67
01-12-0373	RES CARBON FILM 37K 1/4W 5% TH	1	R39
01-12-0391	RES CARBON FILM 390R 1/4W 5% TH	1	R68
01-12-0392	RES CARBON FILM 3.9K 1/4W 5% TH	1	R62
01-12-0473	RES CARBON FILM 47K 1/4W 5% TH	2	R30,R60
01-12-0474	RES CARBON FILM 470K 1/4W 5% TH	8	R21,R24,R28,R72,R84,R92-R93,R100
01-12-0475	RES CARBON FILM 4.7M 1/4W 5% TH	1	R12
01-12-0510	RES CARBON FILM 51R 1/4W 5% TH	2	R6,R33
01-12-0620	RES CARBON FILM 62R 1/4W 5% TH	4	R18,R32,R35,R118
01-12-0621	RES CARBON FILM 620R 1/4W 5% TH	1	R82
01-12-0683	RES CARBON FILM 68K 1/4W 5% TH	2	R11,R113

Alchemist 112/212/HD Parts List

01-12-0821	RES CARBON FILM 820R 1/4W 5% TH	3	R3,R49,R64
01-12-0824	RES CARBON FILM 820K 1/4W 5% TH	1	R42
01-17-0103	RES CARBON FILM 10K 1W 5% TH	3	R19,R36,R77
01-17-0104	RES CARBON FILM 100K 1W 5% TH	8	R8-R9,R20,R23,R43,R55,R61,R78
01-17-0224	RES CARBON FILM 220K 1W 5% TH	1	R37
01-17-0823	RES CARBON FILM 82K 1W 5% TH	1	R80
03-00-0222	CAP CER DISC 2200pF 1KV 10% TH 9.5/6/6.35	2	C26,C62
03-00-2223	CAP POLY FILM 22nF 600V 10% TH	3	C12,C15,C25
03-00-3102	CAP CER DISC 1000pF 1KV 10% TH 6.5/6/6.35	2	C53,C90
03-00-3470	CAP CER DISC SL 47pF 1KV 5% TH 6.5/6.0/6.35	2	C48,C65
03-00-3471	CAP CER 470pF 1000V 10% TH 6.5/6/6.35	3	C28,C51,C56
03-10-0106	CAP ELEC 10uF 10V 20% RADIAL 5/11/2	5	C10,C19-C20,C36,C45
03-22-0225	CAP ELEC 2.2uF 100V 20% RADIAL 5/11/2	1	C31
03-22-0226	CAP ELEC 22uF 450V 20% RADIAL 16/32/12.5	4	C13,C23,C34,C39
03-22-0335	CAP ELEC 3.3uF 100V 20% RADIAL 5/11/2	1	C7
03-23-0105	CAP ELEC 1uF 100V 20% LowZ 0.7R RADIAL 5/11/2	1	C9
03-24-0223	CAP MET POLY 22nF 250V 10% TH 10.3/4.4/7.5/7.5	3	C1-C2,C4
03-24-1224	CAP MET POLY 0.22uF 400V 10% TH 28/8.5/0.8	3	C5,C11,C22
03-24-1684	CAP MET POLY 0.68uF 100V 5% TH 18.0/5.5/10.5/15	1	C21
03-24-3104	CAP MET POLY 0.1uF 400V 10% TH AXIAL 20.5/8/0.8	3	C41,C44,C47
03-25-0103	CAP MET POLYPROP 0.1uF 400V 10% TH	3	C17,C37,C43
03-25-0104	CAP MET POLYPROP 0.1uF 250V 10% TH	1	C49
03-25-0223	CAP MET POLYPROP .022uF 630V 5% TH 13/5/11/10	1	C67
03-25-0471	CAP POLY-PROP 470pF 630V, 5% TH 10/3/8.5/7.5	1	C60
03-25-0474	CAP MET POLYPROP 0.47uF 400V 10% AXIAL TH	1	C46
03-25-6104	CAP MET POLYPROP 0.1uF 630V 10% TH 26/15/10/22.5	2	C14,C24
03-27-0103	CAP POLYESTER 0.01uF 400V 10% TH 20.3/14.7/7.1/9.5 ORANGE DR	1	C16
03-27-0503	CAP POLYESTER .047uF 400V 10% TH 20.3/16.5/10.4/9.5 ORANGE D	2	C35,C70
03-27-1223	CAP POLYESTER 0.022uF 400V 10% TH 20.3/7.8/7.16/5/9.5 ORANGE	2	C33,C55
03-70-0050	CAP MICA STD DIPPED 5pF 500V 5% TH 9.1/4.8/8.4/3.6	1	C68
03-70-0120	CAP MICA STD DIPPED 12pF 500V 5% TH 9.1/4.8/8.4/3.6	1	C40
03-70-0220	CAP MICA STD DIPPED 22pF 500V 5% TH 9.1/4.8/8.4/3.6	1	C66
03-70-0330	CAP MICA STD DIPPED 33pF 500V 5% TH 9.4/4.8/8.6/3.6	1	C69
03-70-0470	CAP MICA STD DIPPED 47pF 500V 5% TH 9.4/4.8/8.6/3.6	1	C54
06-00-4148	DIODE SMALL SIGNAL 100V 300mA 4NS DO-35 TH	12	D1-D6,D8-D13
09-00-5401	TRANS PNP SMALL SIGNAL 2N5401 TH	1	Q2
12-12-0109	IC SWITCH ANALOG 1 600V Z0109 TO-92 TH	1	Q1
21-18-0007	TUBE SOCKET BELTON VT9-PT	5	J1-J5
21-20-0202	HDR SIL PCB-MT 2 PIN x 2MM MALE SHRD VERT MT TH	4	H3,H6-H7,H15
21-20-0203	HDR SIL PCB-MT 3 PIN x 2MM MALE SHRD VERT MT TH	1	H9
21-20-0214	HDR SIL PCB-MT 14 PIN x 2MM MA LE SHRD VERT MNT TH	1	H14
21-20-1562	HDR SIL PCB-MT 2 PIN x .156 MA LE VERT MINT FRIC LOCK	7	H1-H2,H4-H5,H10,H16-H17
21-20-3122	HDR SIL PCB-MT 2 PIN x 7.92MM MALE VERT MINT FRIC LOCK	3	H8,H11-H12
21-20-3125	HDR SIL PCB-MT 5 PIN x .312 MA LE VERT MINT FRIC LOCK	1	H13
24-15-0005	RELAY DPDT OMRON LOW SIGNAL G6A-234P-ST-US-DCS	1	K4
24-15-0007	RELAY SPST COTO TECHNOLOGY 9007-05-00 SPARTAN REED RELAY	4	K2,K7,K10-K11
24-15-0016	RELAY DPDT NEC MINIATURE SIGNAL NON LATCH UC2-5NU CoilRes=178	9	K1,K3,K5-K6,K8-K9,K12-K14
35-00-0290	PCB PRE AMP ALL VALVE A16	1	

Alchemist Power Amp PCBA BOM			
Part Number	Description	Qty	Reference Designator(s)
50-02-0291	PCBA POWER AMP ALL VALVE A16	1	
01-12-0184	RES CARBON FILM 180K 1/4W 5% TH	2	R6,R12
01-12-0222	RES CARBON FILM 2.2K 1/4W 5% TH	2	R4,R11
01-12-0223	RES CARBON FILM 22K 1/4W 5% TH	1	R5
01-12-0682	RES CARBON FILM 6.8K 1/4W 5% TH	1	R3
01-23-0100	RES WIREWOUND 10R 5W 5% TH	2	R1-R2
01-23-0471	RES WIREWOUND 470R 7W 5% TH	2	R7-R8
01-52-0503	POT TRIM 50K MULTI TURN TOP ADJ 9.53/6.10/10.03	2	R9-R10
03-22-0106	CAP ELEC 100F 100V 20% 85C RADIAL 6.3/11/2.5	2	C1-C2
21-18-0009	TUBE SOCKET BELTON V18-PTS 8 PIN TH OVAL MNT HOLE SHORT LL	2	J1-J2
21-18-0250	CONN TAB FAST TIN PCB .250" x .032" MALE TH	2	W1-W2
21-20-0012	HDR SIL PCB-MT 3 PIN x .100 MA LE FRIC-LOCK VERT MNT TH	1	H2
21-20-3122	HDR SIL PCB-MT 2 PIN x 7.92MM MALE VERT MNT FRIC LOCK	1	H4
21-20-3125	HDR SIL PCB-MT 5 PIN x .312 MA LE VERT MNT FRIC LOCK	1	H3
30-00-0137	SCREW 4-40 x .3125 w/LK WASH PAN HD PHIL BLK	4	
30-12-0011	STANDOFF HEX .250 4-40 F 0.500-IN AL	4	
35-00-0291	PCB POWER AMP ALL VALVE A16	1	
Alchemist Power Supply PCBA BOM			
Part Number	Description	Qty	Reference Designator(s)
50-02-0292	PCBA POWER SUPPLY ALL VALVE A16	1	
01-16-0471	RES CARBON FILM 470R 1/2W 5% TH	2	R2,R5
01-17-0101	RES CARBON FILM 100R 1W 5% TH	2	R1,R4
01-17-0224	RES CARBON FILM 220K 1W 5% TH	4	R9-R12
01-23-05R0	RES WIREWOUND 5R 7W 5% TH	3	R6-R8
01-52-0102	POT TRIM 1K SINGLE TURN TOP ADJ 6.75 x 6.75 x 7.75MM	1	R3
03-00-0222	CAP CER DISC 2200pF 1KV 10% TH 9.5/6/6.35	1	C4
03-00-1102	CAP CER DISC Y-CAP 1nF 250VAC 20% 8D/7/7.5	2	C1-C2
03-10-0689	CAP ELEC 68000uF 10V 20% RADIAL 35/40/10	1	C7
03-16-0478	CAP ELEC 4700uF 35V 20% 105C RADIAL 18/35.5/7.5	1	C6
03-18-0108	CAP ELEC 1000uF 50V 20% FC RADIAL	1	C11
03-22-0826	CAP ELEC 82uF 400V 20% RADIAL 25.4/25/10 SNAP IN	2	C9-C10
03-22-1686	CAP ELEC 68uF 400V 20% RADIAL 25/20/10 SNAP IN	2	C8,C12
03-23-0101	CAP ELEC 100uF 160V RADIAL	1	C5
03-41-0224	CAP X-CAP 0.22uF 275VAC 20% POLYPROPYLENE 18/9.5/17.5/15	1	C3
06-01-4007	DIODE RECTIFIER 1N4007 1KV 1A DO-41 TH	9	D1-D4,D6,D8-D11
06-16-0008	DIODE BRIDGE RECTIFIER 600V 8A 4 PIN SIL TH	1	D5
06-16-0101	DIODE BRIDGE RECTIFIER 50V 1A 4 PIN DB-1 TH	1	D7
11-10-2020	CHOKE WIDE BAND 1-5 TURNS	2	L1-L2
11-30-0032	XFMR 330VAC-55VAC @ 25mA	1	T1
21-18-0250	CONN TAB FAST TIN PCB .250" x .032" MALE TH	2	W1,W6
21-20-1563	HDR SIL PCB-MT 3 PIN x 3.96MM MALE VERT MNT FRIC LOCK	1	H12
21-20-1564	HDR SIL PCB-MT 4 PIN x .156 MA LE VERT MNT FRIC LOCK	1	H4
21-20-3122	HDR SIL PCB-MT 2 PIN x 7.92MM MALE VERT MNT FRIC LOCK	5	H1-H3,H8-H9
21-20-3123	HDR SIL PCB-MT 3 PIN x 7.92MM MALE VERT MNT FRIC LOCK	3	H5-H6,H10
21-20-3125	HDR SIL PCB-MT 5 PIN x .312 MA LE VERT MNT FRIC LOCK	1	H11
21-34-0106	CBL SIL 9-PIN/5 COND 18AWG 3-96 MULTI 2-COND/3-S/T	1	POWER AMP H3 TO PREAMP H11
21-48-0520	FUSE CLIP PCB MNT FOR 5 x 20MM	2	CL1-CL2
21-48-2071	HOLDER FUSE CLIP BARREL 3AG / 3AB 0.25"(6.3mm) FUSE DIAMETER	2	CL3-CL4
24-19-0010	FUSE 1.0A 250V SLOW BLOW 3AG	1	F1 (CL3 TO 4)

24-19-8251	FUSE 8.0A 250V 5MMx20MM SLOW BLOW	1	F3 (C11 TO 2)
35-00-0292	PCB POWER SUPPLY ALL VALVE A16	1	
50-02-0293 Alchemist Analog UI PCB BOM			
Part Number	Description	Qty	Reference Designator(s)
50-02-0293	PCBA ANALOG UI ALL VALVE A16	1	
01-12-0101	RES CARBON FILM 100R 1/4W 5% TH	1	R31
01-12-0103	RES CARBON FILM 10K 1/4W 5% TH	1	R22
01-12-0104	RES CARBON FILM 100K 1/4W 5% TH	3	RG,R23,R28
01-12-0105	RES CARBON FILM 1M 1/4W 5% TH	1	R30
01-12-0124	RES CARBON FILM 120K 1/4W 5% TH	1	R8
01-12-0162	RES CARBON FILM 1.6K 1/4W 5% TH	1	R21
01-12-0220	RES CARBON FILM 22R 1/4W 5% TH	1	R1
01-12-0224	RES CARBON FILM 220K 1/4W 5% TH	1	R9
01-12-0274	RES CARBON FILM 270K 1/4W 5% TH	2	R25,R27
01-12-0334	RES CARBON FILM 330K 1/4W 5% TH	1	R26
01-12-0471	RES CARBON FILM 470R 1/4W 5% TH	2	R4,R24
01-12-0472	RES CARBON FILM 4.7K 1/4W 5% TH	1	R3
01-12-0683	RES CARBON FILM 68K 1/4W 5% TH	1	R7
01-12-0684	RES CARBON FILM 680K 1/4W 5% TH	1	R5
01-48-0011	POT SINGLE 250KA AUDIO TAPER 16MM D-SHAFT TH W-AXIS ANGLE	1	R17
01-48-0504	POT SINGLE 500KB LINEAR 16MM D-SHAFT TH	1	R12
01-48-1105	POT SINGLE 1MB LINEAR 16MM D-SHAFT TH	2	R11,R15
01-48-1254	POT SINGLE 250KB LINEAR 16MM D-SHAFT TH	1	R14
01-48-2253	POT SINGLE 25KA AUDIO 16MM D-SHAFT TH	1	R18
01-48-3105	POT SINGLE 1MA AUDIO 16MM D-SHAFT TH	1	R16
01-48-3254	POT SINGLE 250KA AUDIO 16MM D-SHAFT TH	1	R20
01-48-4104	POT SINGLE 100KB LINEAR 16MM D-SHAFT TH	1	R13
01-49-1105	POT DUAL 1MB LINEAR TAPER 16MM D-SHAFT TH	1	R19
03-00-0821	CAP CER DISC 820pF 1KV 10% TH 6.5/6/6.35	1	C16
03-24-2104	CAP MET POLY 0.1uF 400V 10% TH WIMA	1	C11
03-24-2223	CAP MET POLY 22nF 630V 5% TH AXIAL 16.5/7/7/22.5	2	C1,C5
03-25-0102	CAP POLYPROP 1000pF 630V , 5% TH 10/3/8.5/7.5	1	C7
03-25-0471	CAP POLY-PROP 470pF 630V, 5% TH 10/3/8.5/7.5	2	C2,C4
03-25-0472	CAP MET POLYPROP 0.0047uF 1600V, 10% TH 19/9.5/15.5/15	1	C3
03-25-0473	CAP MET POLYPROP 0.047uF 400V 10% TH 13/11/7.5/10	1	C10
03-70-0221	CAP MICA STD DIPPED 220pF 500V 5% TH 11.7/5.1/9.7/5.9	1	C13

03-70-0271	CAP MICA STD DIPPED 270pF 500V 5% TH 11.9/5.3/9.9/5.9	1	C6
06-00-4148	DIODE SMALL SIGNAL 100V 300mA 4nS DO-35 TH	6	D1,D3,D5-D7,D9
18-02-0002	LED RED DIFFUSED LENS 5V T-1 3MM 635nm TH	1	
18-03-0003	LED BLUE T-1 3MM SOLID STATE LAMP WATER CLEAR TH	1	
18-04-0001	LED GREEN SUPER BRIGHT TH	1	
21-20-0202	HDR SIL PCB-MT 2 PIN x 2MM MALE SHRD VERT MT TH	1	H4
21-20-0203	HDR SIL PCB-MT 3 PIN x 2MM MALE SHRD VERT MT TH	1	H5
21-20-0205	HDR SIL PCB-MT 5 PIN x 2MM MALE SHRD VERT MT TH	1	H2
21-20-1562	HDR SIL PCB-MT 2 PIN x .156 MALE VERT MNT FRIC LOCK	6	H3,H6-H10
21-30-0055-1	CBL SIL 14 COND 26AWG 2MM 3.0" 5/T	1	
21-34-0084-1	CBL SIL 5 COND 22AWG .1" PITCH x 1.5" TINNED ENDS 300V 105C	1	
24-03-0200	SWITCH TOGGLE DPDT 120V 5A 6P 1.27 PC TERMINAL THREAD MNT	2	
24-03-0210	SWITCH TOGGLE DPDT 2 POS 20V 0.4VA 8P SNAP IN SEALED	6	
24-15-0007	RELAY SPST COTO TECHNOLOGY 9007-05-00 SPARTAN REED RELAY	1	K1
24-15-0016	RELAY DPDT NEC MINIATURE SIGNAL NON LATCH UC2-5NU CoilRes=178	1	K2
30-15-0029	SPACER LED .160 H x .170 O.D. PLASTIC LH-5-4	3	
35-00-0293	PCB ANALOG UI ALL VALVE A16	1	
59-00-1807 Alchemist Footswitch BOM			
Part Number	Description	Qty	Reference Designator(s)
59-00-1807	ASSY UNIT COMPLETE FOOTSWITCH AV COMBO A16	1	
21-34-0103-2	CBL SIL 3 COND 26AWG 2MM 3" F-F WHITE	1	
30-00-9813	SCREW 4-40 x 0.250" FLAT-HD STEEL BLACK-OXIDE	6	
30-03-0017	WASHER 15.9 x11.9x .53mm STEEL NICKEL	4	
30-21-0013	LED RETAINING CLIP PLASTIC BLACK A16	4	
30-48-0010	FOOT RUBBER w/ADHESIVE 3M BUMPON SJ-5012 (OR EQUIV)	6	
30-51-0324	CHASSIS BOTTOM FT SW 12.5 x 3.2 x 1.6 GALVANIZED STEEL A16	1	
30-51-0325	CHASSIS TOP FT SW 12.5 x 3.3 x 1.6 GALVANIZED STEEL A16	1	
41-00-0175	ARTWORK SILSCREEN CHASSIS FOOTSWITCH AV A16	1	
50-02-0109-1 Alchemist Footswitch Main PCBA BOM			
Part Number	Description	Qty	Reference Designator(s)
50-02-0109-1	PCBA FOOTSWITCH MAIN A16	1	
01-36-0100	RES CARBON FILM 10R 1/4W 1% TH	1	R10
01-36-1001	RES CARBON FILM 1K 1/4W 1% TH	4	R2,R9,R11-R12
01-36-2001	RES CARBON FILM 2K 1/4W 1% TH	5	R1,R3,R5,R7,R13
01-36-2002	RES CARBON FILM 20K 1/4W 1% TH	1	R4
01-36-7501	RES CARBON FILM 7.5K 1/4W 1% TH	2	8,R6
03-24-1104	CAP MET POLY 0.1uF 100VDC 5% TH 4.5/7.5/7/5	2	C1-C2
18-00-1503	LED RED SUPER BRIGHT T1 3/4 5M M TH	2	D2-D3
18-03-0002	LED BLUE DIFFUSED T-1 3/4 5MM 465nm TH	1	D2
18-06-0001	LED BI COLOR GRN/AIGaAs/RED TH	1	D1
21-20-0203	HDR SIL PCB-MT 3 PIN x 2MM MALE SHRD VERT MT TH	1	H1
24-01-0000	SWITCH LATCHING PUSH BUTTON DP DT 6 PIN DIL TH	4	SW1-SW4
30-15-0740	SPACER LED 0.74 H x 0.255 O.D BIVAR ELM 3-740	4	D1-D4
35-00-0046-1	PCB FOOT SWITCH A16 MAIN	1	
50-02-0109-2 Alchemist Footswitch Switch PCBA BOM			
Part Number	Description	Qty	Reference Designator(s)
50-02-0109-2	PCBA FOOTSWITCH XLR A16	1	
21-08-0013	JACK XLR MALE PCB MOUNT RIGHT ANGLE TH	1	J1
21-20-0203	HDR SIL PCB-MT 3 PIN x 2MM MALE SHRD VERT MT TH	1	H2
30-18-3030	CLIP GROUND PCB .30 x .30 x .07	1	GF1
35-00-0046-2	PCB FOOT SWITCH A16 XLR	1	