



# Spider Valve

112- 40 watt and 212- 50 watt  
Service Manual

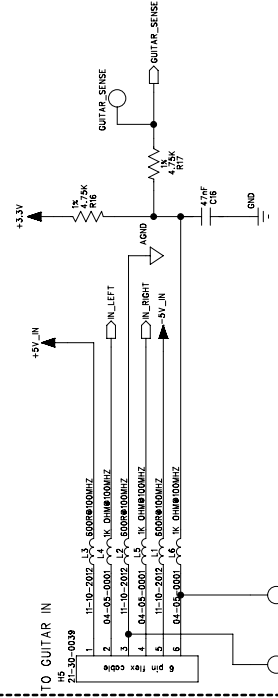
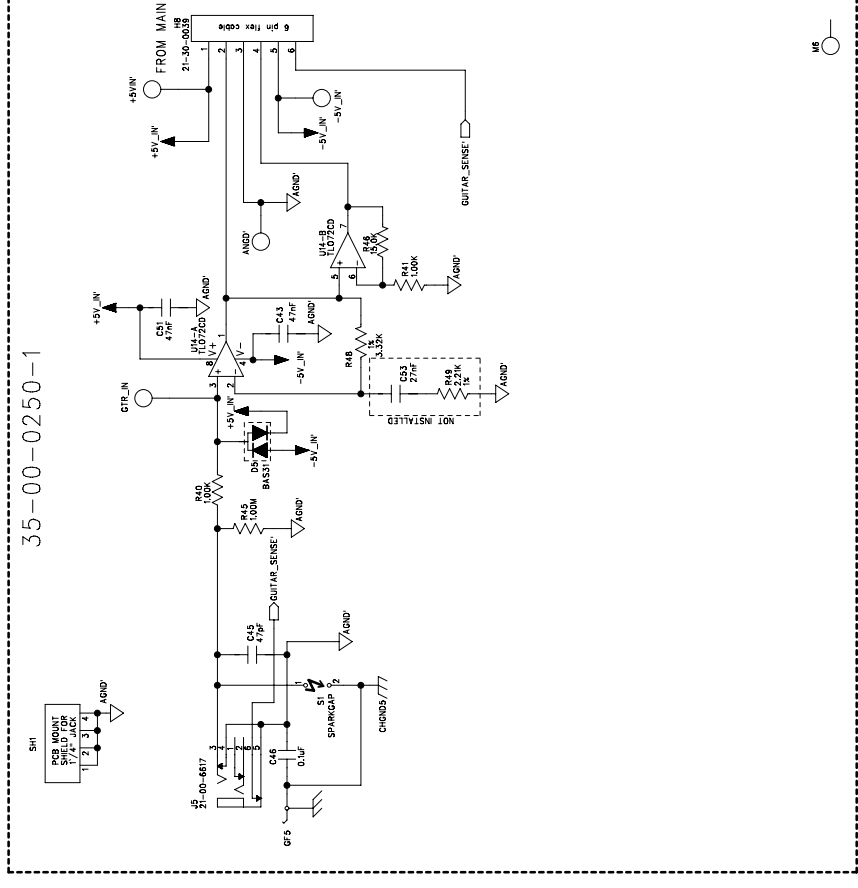
TUBE AMP DESIGN BY  
*Bogner*

1 2 3 4 5 6

|  |            |
|--|------------|
| ECO# INCLUDED ON THIS SCHEMATIC/PCB REVISION |            |
| ECO NO:                                      | DATE:      |
| 0719003                                      | 06/08/2007 |
| DESCRIPTION:                                 |            |
| Revised as per A                             |            |

## GUITAR IN BREAK-AWAY PCB

35-00-0250-1



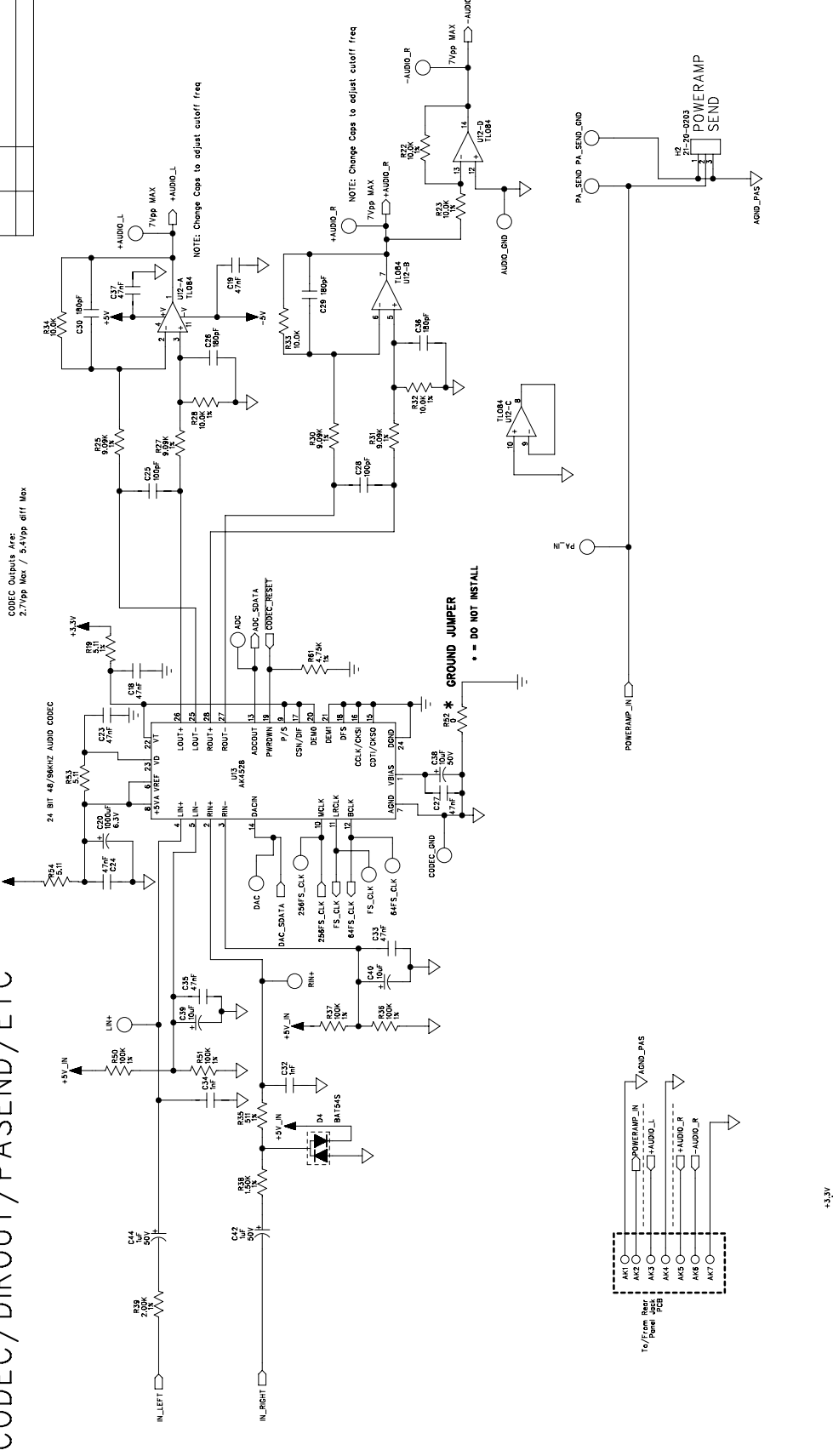
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|           |                          |
|-----------|--------------------------|
| COMPANY:  | LINE 6                   |
| TITLE:    | A15: SV MAIN             |
| PROGRAM:  | GUITAR IN BREAK-AWAY PCB |
| FILENAME: | PADS POWER LOGIC 2004    |
| DATE:     | 06/08/2007               |
| DRAWN:    | C. KIRBY / D. MOHR       |
| CHECKED:  | review panel             |
| DATE:     |                          |
| SCALE:    | 1:1                      |
| SHEET:    | 1 OF 6                   |

|              |        |
|--------------|--------|
| REVISION:    | A      |
| DESCRIPTION: |        |
| DATE:        |        |
| SCALE:       | 1:1    |
| SHEET:       | 1 OF 6 |

# CODEC/DIROUT/PASEND/ETC

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



CODEC Outputs Are:  
2.7Vpp Max / 5.4Vpp diff Max

NOTE: Change Caps to adjust cutoff freq

NOTE: Change Caps to adjust cutoff freq

COMPANY: LINE 6

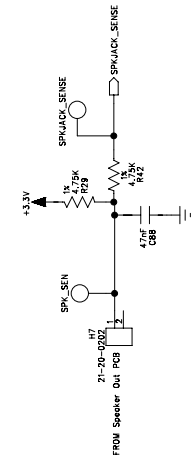
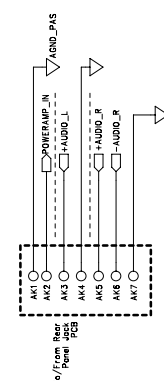
TITLE: A15: SV MAIN

PROGRAM: PADS POWER LOGIC 2004

REV: A

|                     |            |
|---------------------|------------|
| DRAWN:              | DATE:      |
| C. McVey / D. McVey | 06/08/2007 |
| CHECKED:            | DATE:      |
| review panel        |            |

|            |          |                         |               |
|------------|----------|-------------------------|---------------|
| SCALE: 1:1 | SHEET: C | PART NUMBER: 35-00-0250 | SHEET: 2 of 6 |
|------------|----------|-------------------------|---------------|



DIGITAL

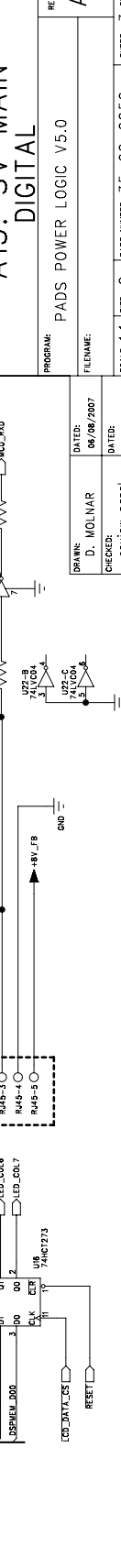
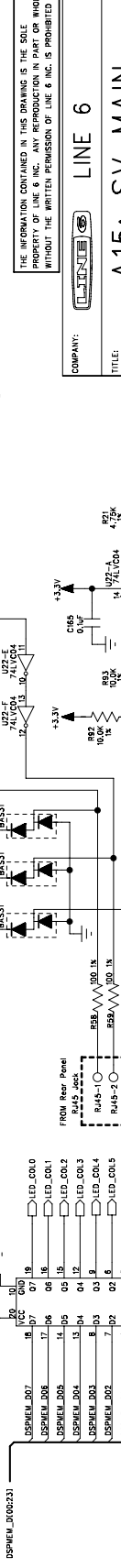
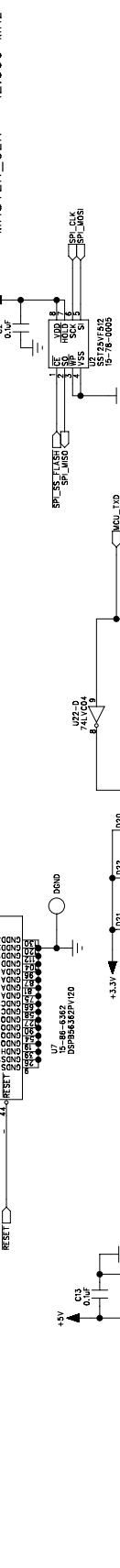
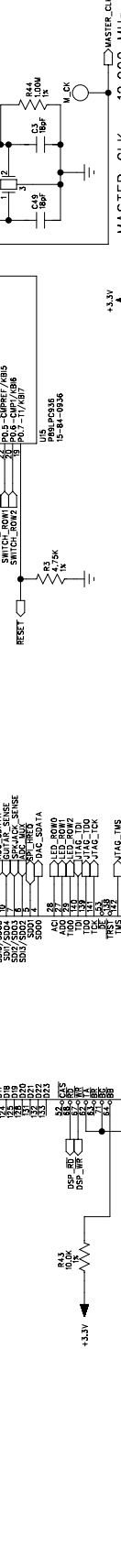
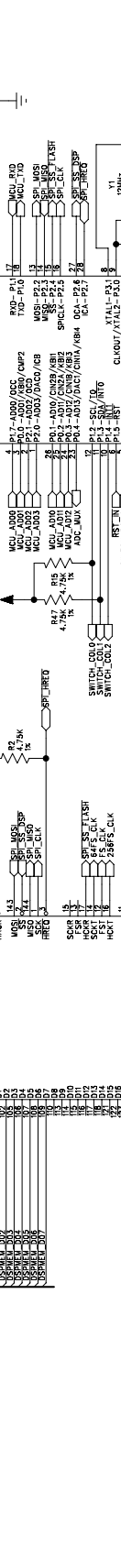
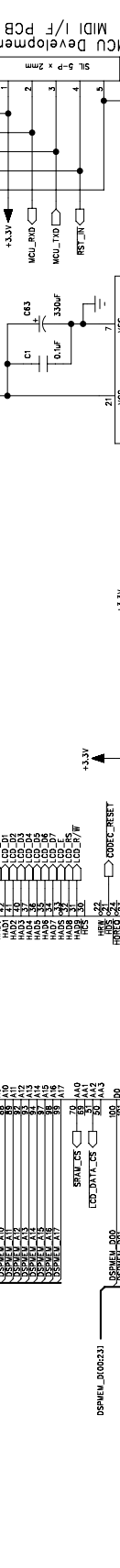
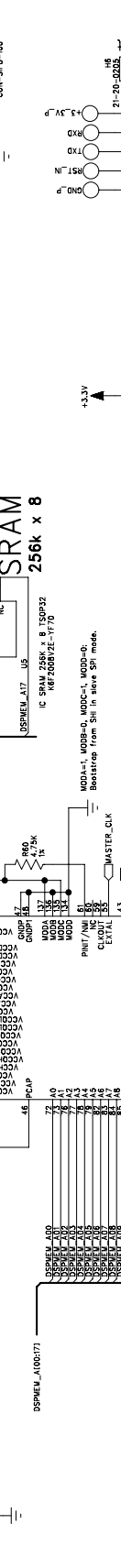
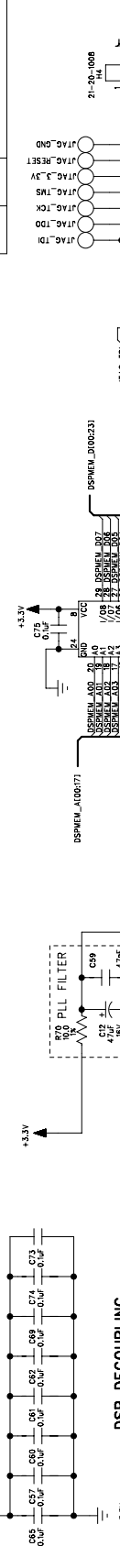
DIGITAL

DIGITAL

DIGITAL

ECO# INCLUDED ON THIS SCHEMATIC/PCB REVISION

ECO NO: DATE: DESCRIPTION:



1

2

3

4

5

6

JTAG Connector

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

21-20-0205

256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

MCU Development

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

MASTER\_CLK = 12.000 MHz

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

COMPANY: LINE 6

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

REV: A

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

FILENAME: PADS POWER LOGIC V5.0

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

SCALE: 1:1

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

SHEET: 3 OF 6

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

DATE: 06/08/2007

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

DRIVER: D. MOLNAR

SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING

DSP DECOUPLING

CHECKED: review panel

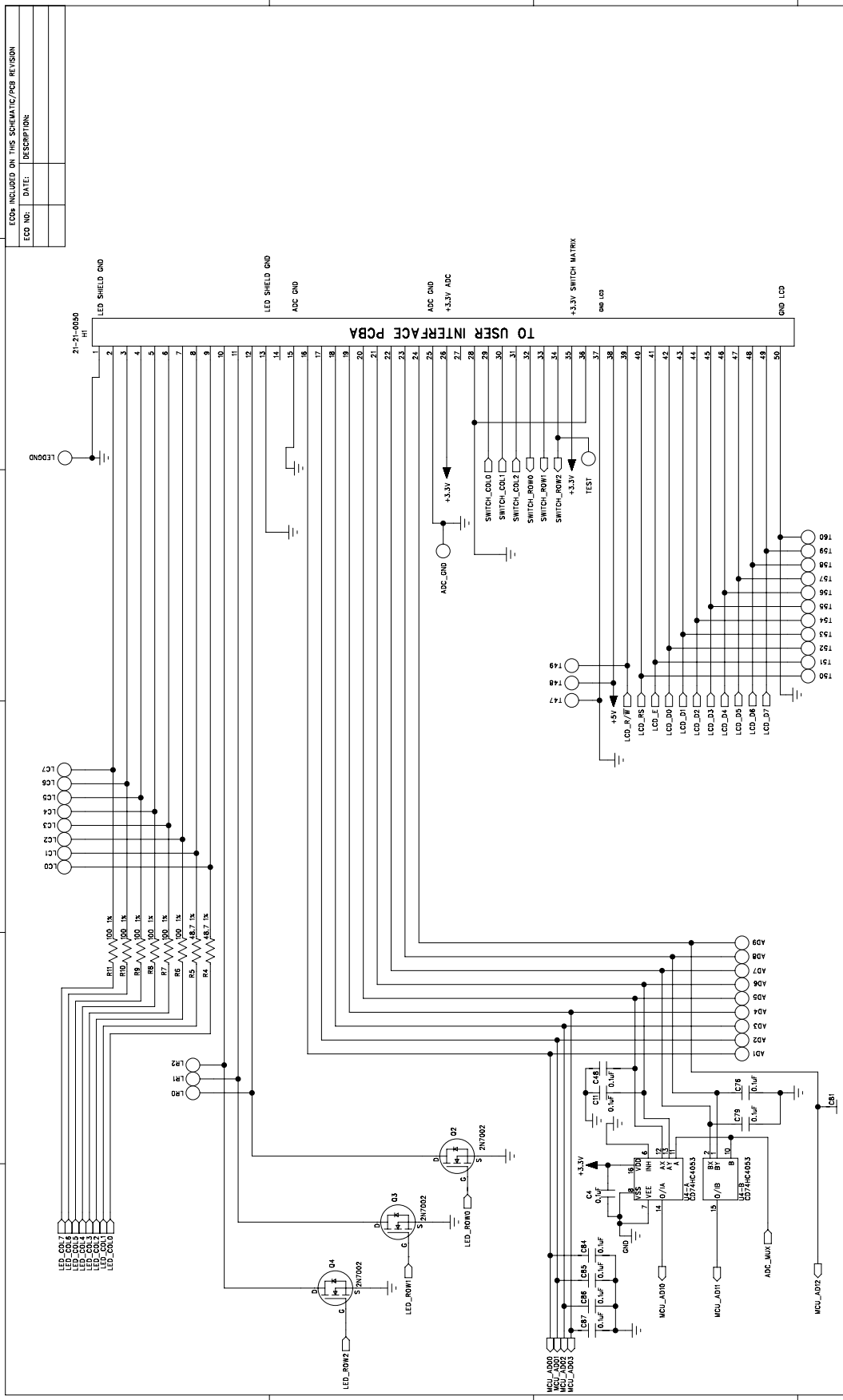
SRAM 256K x 8

DSP DECOUPLING

DSP DECOUPLING


DSP DECOUPLING

1  
2  
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ECO# INCLUDED ON THIS SCHEMATIC/PCB REVISION

| ECO NO. | DATE: | DESCRIPTION: |
|---------|-------|--------------|
|         |       |              |
|         |       |              |
|         |       |              |

COMPANY:  LINE 6

TITLE: **A15: SV MAIN INTERFACE**

PROGRAM: PADS POWER LOGIC 2004

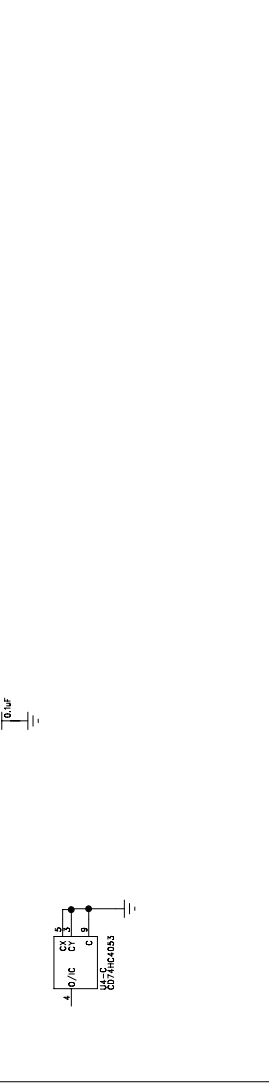
REV: A

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DRAWN: D. MOLNAR DATE: 06/08/2007

CHECKED: review panel DATE:

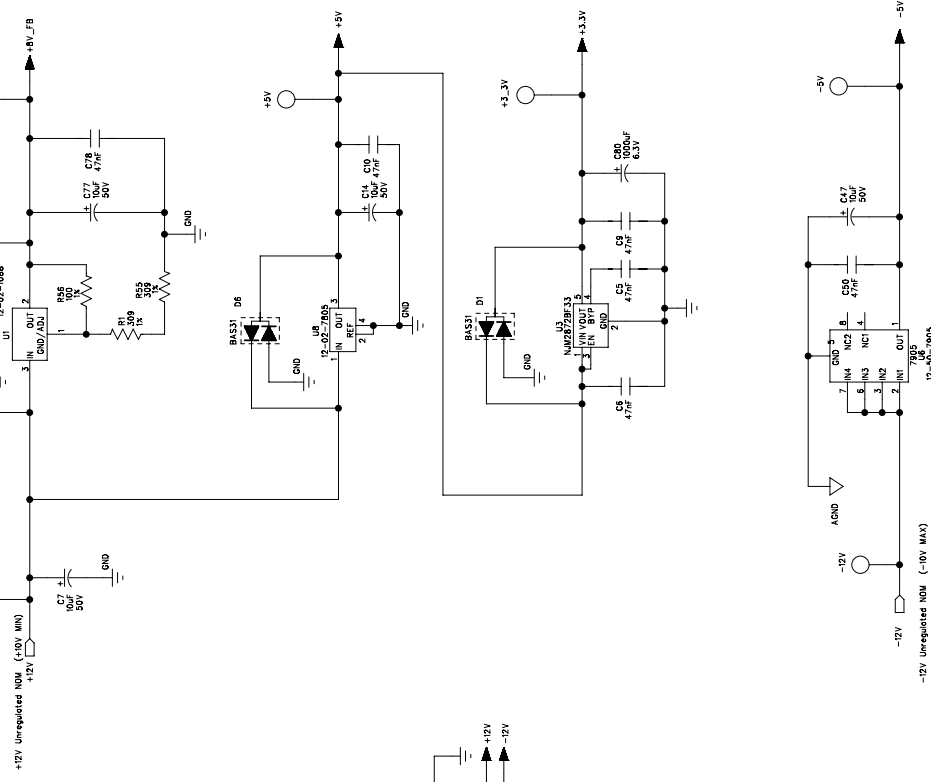
SCALE: 1:1 SIZE: C PART NUMBER: 35-00-0250 SHEET: 4 OF 6



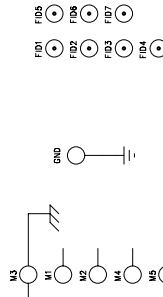
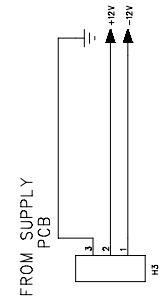
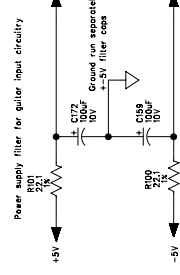
6 5 4 3 2 1

# POWER

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



GND and AGND connected at supply



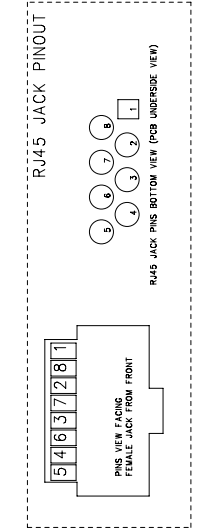
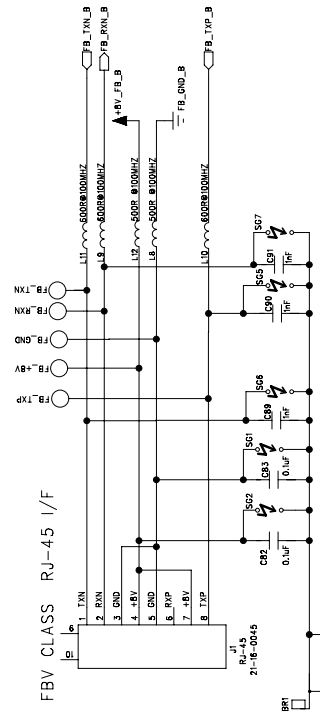
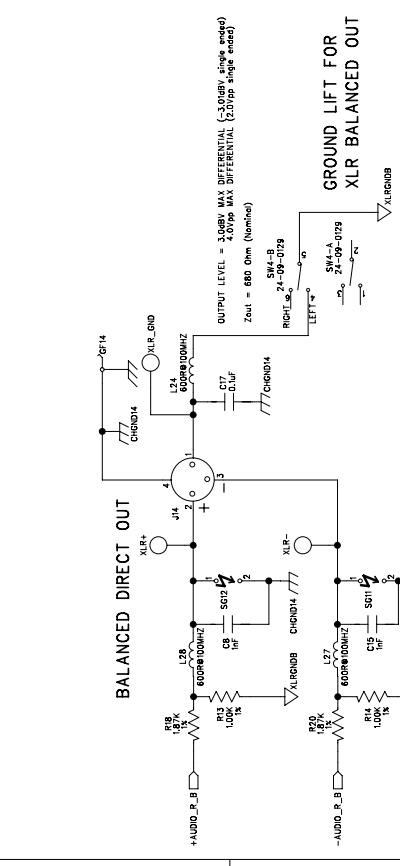
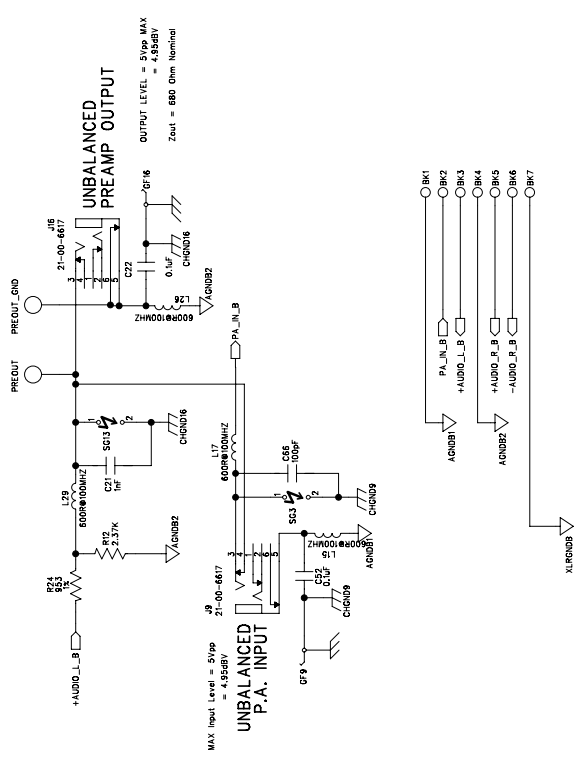
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|           |                       |
|-----------|-----------------------|
| COMPANY:  | LINE 6                |
| TITLE:    | A15: SV MAIN POWER    |
| PROGRAM:  | PADS POWER LOGIC 2004 |
| REV:      | A                     |
| DATE:     | 06/08/2007            |
| FILENAME: |                       |
| SCALE:    | 1:1                   |
| SHEET:    | 5 OF 6                |

|          |                        |
|----------|------------------------|
| DRAWN:   | D. Molnar / C. Kirrley |
| CHECKED: | review panel           |
| DATE:    |                        |

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

1 2 3 4 5 6



COMPANY: **LINE 6**

TITLE: **A15: SV MAIN**

PROGRAM: **REAR PANEL JACKS BREAKAWAY PCB**

REV: **A**

DATE: **06/08/2007**

CHECKED: **D. MOLNAR**

SCALE: **1:1**

SIZE: **C**

PART NUMBERS: **35-00-0250-2**

SHEET: **6 OF 6**

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DRAWN: **D. MOLNAR**

DATE: **06/08/2007**

CHECKED: **D. MOLNAR**

DATE: **06/08/2007**

PROGRAM: **PADS LOGIC 2004**

FILENAME: **A**

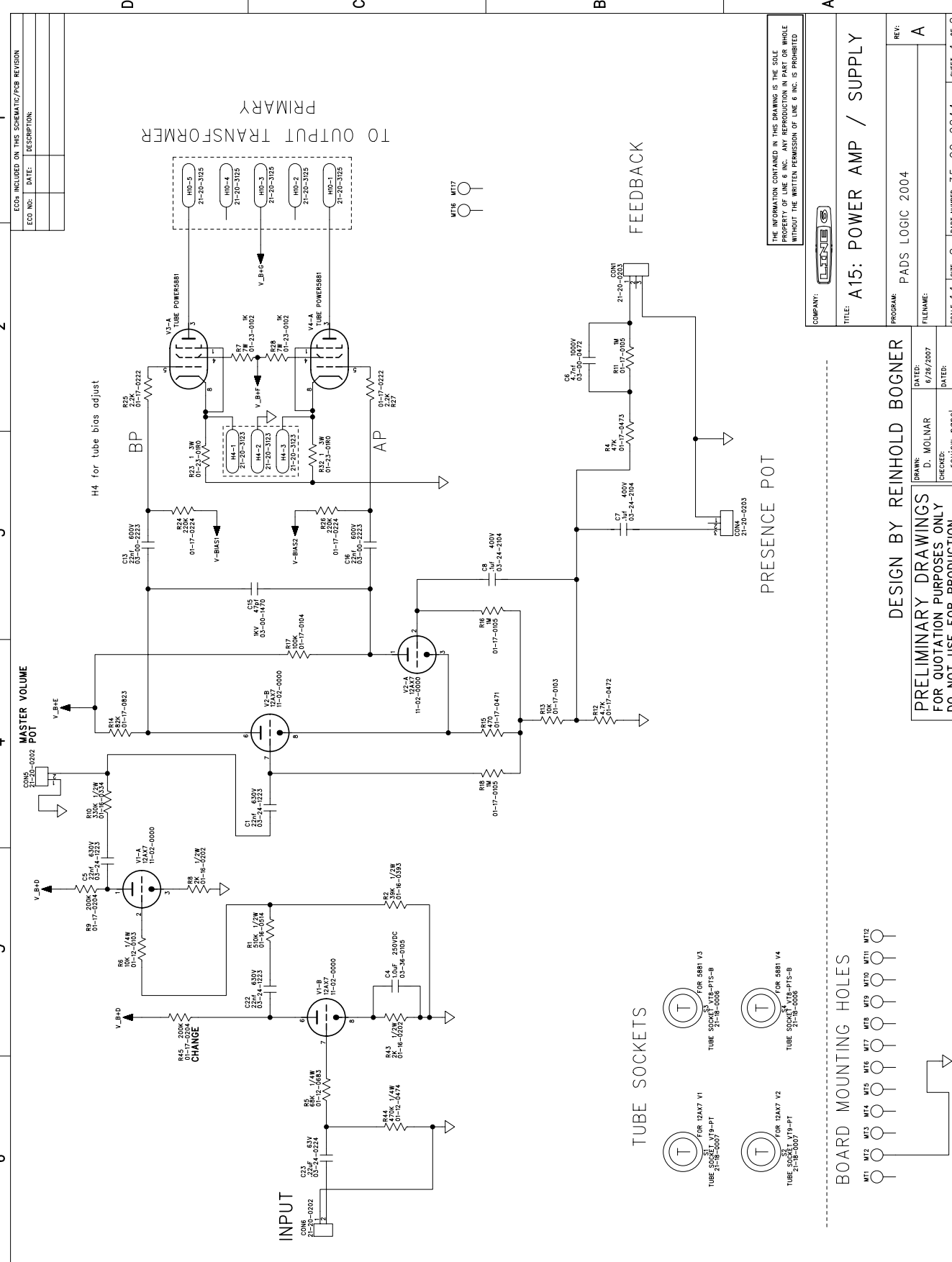
SCALE: **1:1**

SIZE: **C**

PART NUMBERS: **35-00-0250-2**

SHEET: **6 OF 6**

**PRELIMINARY DRAWINGS FOR QUOTATION PURPOSES ONLY DO NOT USE FOR PRODUCTION**



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

H4 for tube bias adjust  
BP  
AP  
FEEDBACK  
PRESENCE POT

TO OUTPUT TRANSFORMER  
PRIMARY

WT16 WT17

COMPANY: **LOGIC**

TITLE: **A15: POWER AMP / SUPPLY**

PROGRAM: **PADS LOGIC 2004**

REVISION: **A**

DATE: **6/26/2007**

DRAWN: **D. MOLNAR**

CHECKED: **review panel**

SCALE: **1:1** SIZE: **C** PART NUMBER: **35-00-0244** SHEET: **1 OF 2**

DESIGN BY **REINHOLD BOGNER**

PRELIMINARY DRAWINGS FOR QUOTATION PURPOSES ONLY DO NOT USE FOR PRODUCTION

BOARD MOUNTING HOLES

TUBE SOCKETS

FOR 12AX7 V1  
TUBE SOCKET VT18-PT5-B

FOR 5881 V3  
TUBE SOCKET VT18-PT5-B

FOR 12AX7 V2  
TUBE SOCKET VT18-PT5-B

FOR 5881 V4  
TUBE SOCKET VT18-PT5-B

WT16 WT17



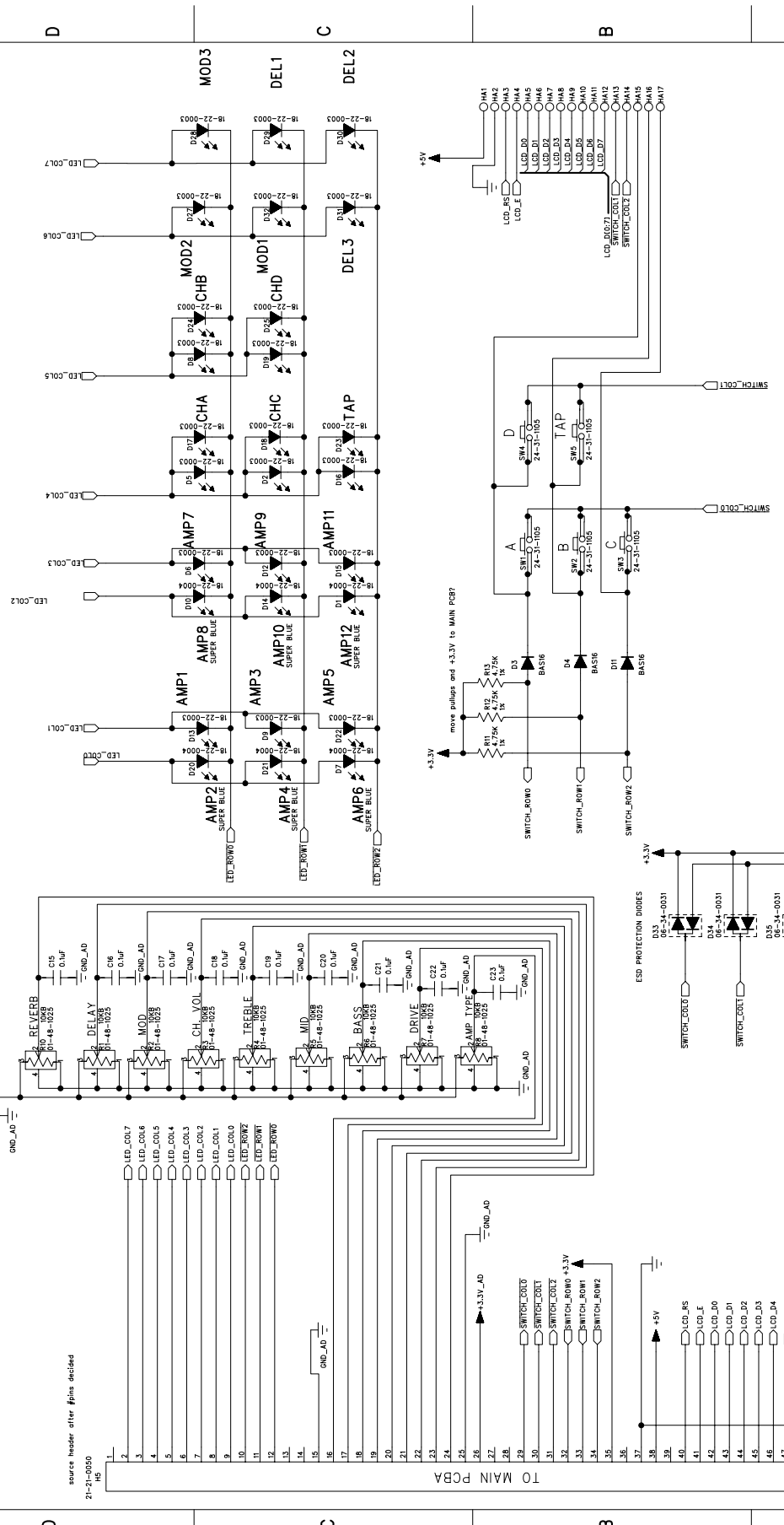


| ECO# | DATE | DESCRIPTION |
|------|------|-------------|
|      |      |             |
|      |      |             |

# USER INTERFACE

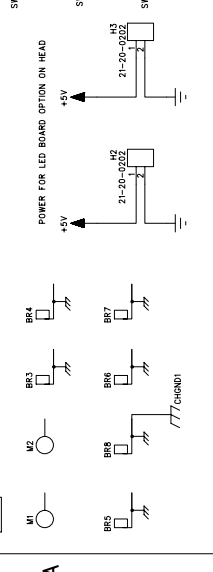
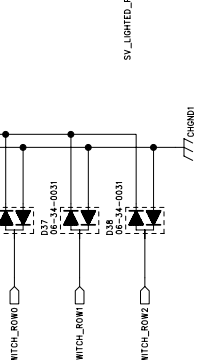
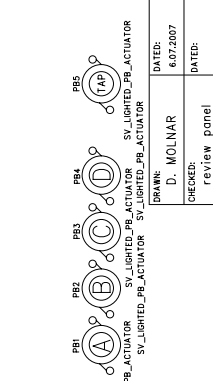
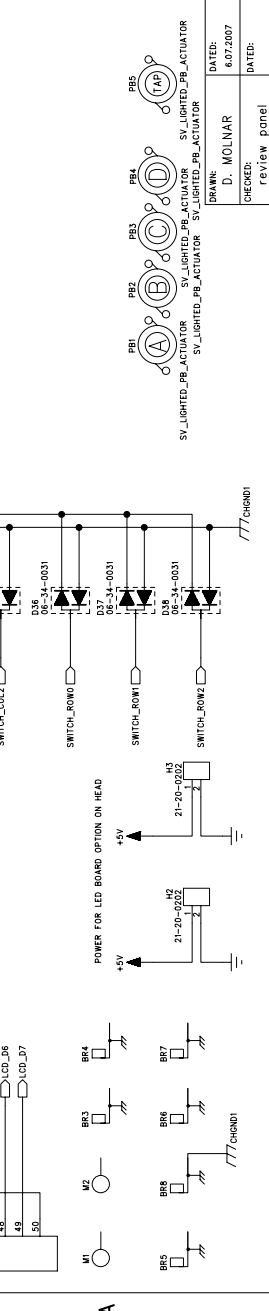
| ECO# | DATE | DESCRIPTION |
|------|------|-------------|
|      |      |             |
|      |      |             |

All Pots - Linear Taper



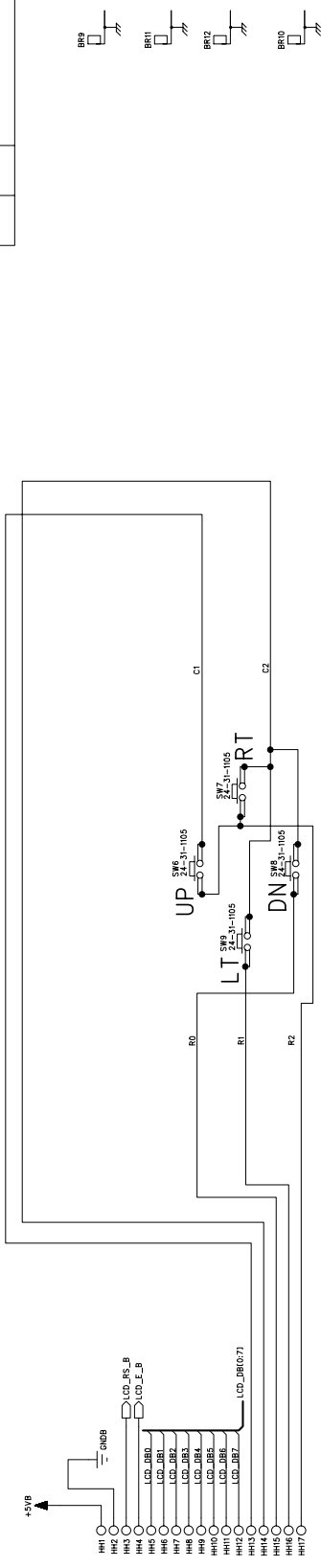
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|           |                          |
|-----------|--------------------------|
| COMPANY:  | LINE 6                   |
| TITLE:    | A15: SV UI PCB LEFT HALF |
| PROGRAM:  | PADS POWER LOGIC 2004    |
| REVISION: | A                        |
| DRAWN:    | D. MOLNAR                |
| DATE:     | 6.07.2007                |
| CHECKED:  | review panel             |
| SCALE:    | 1:1                      |
| SHEET:    | 1 OF 3                   |

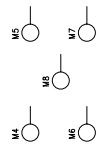


1 2 3 4 5 6

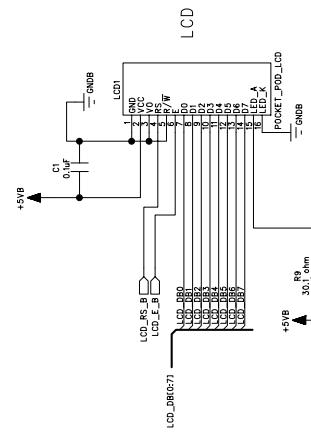
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| ECG# INCLUDED ON THIS SCHEMATIC/PCB REVISION |       |
| ECD NO:                                      | DATE: |
|  |       |
| DESCRIPTION:                                 |       |
|  |       |



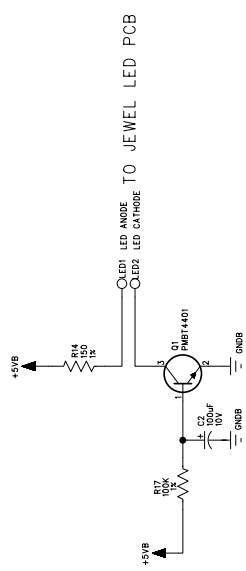
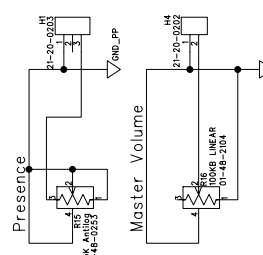
Mounting Holes on UI RIGHT PCB Half  
for 4-way-switch



Priority: 2 out of 9  
or 11 out of 17  
pending mechanical design



POWER AMPLIFIER CONTROL



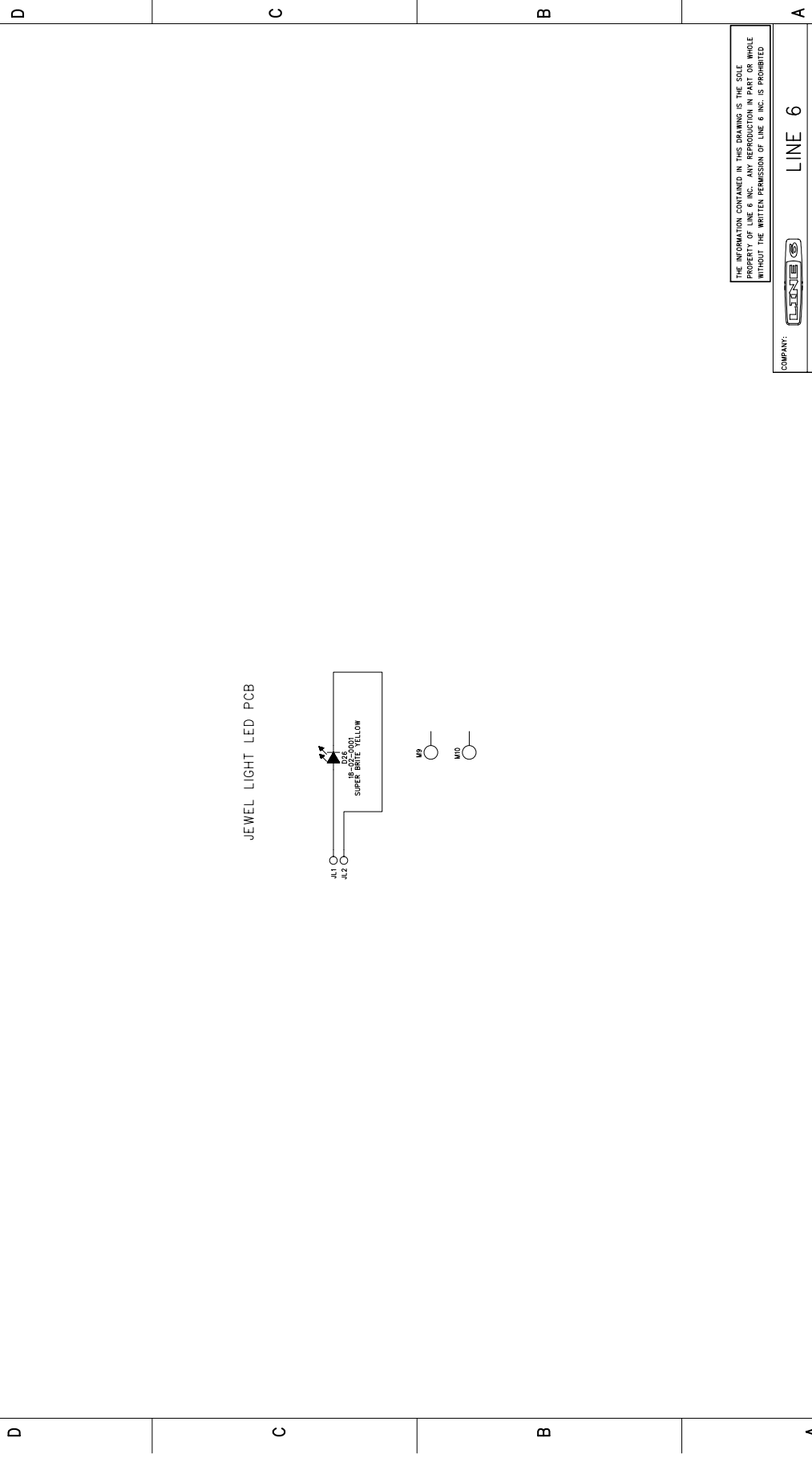
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|          |                              |
|----------|------------------------------|
| COMPANY: | LINE 6                       |
| TITLE:   | A15: SV UI PCB<br>RIGHT HALF |
| PROGRAM: | PADS LOGIC 2004              |
| REV:     | A                            |

|  |              |        |           |
|--|--------------|--------|-----------|
| DRAWN:   | D. MOLMAR    | DATE:  | 6.07.2007 |
| CHECKED:   | review panel | DATE:  |           |
| PRELIMINARY DRAWINGS<br>FOR QUOTATION PURPOSES ONLY<br>DO NOT USE FOR PRODUCTION |              |        |           |
| SCALE:   | 1:1          | SHEET: | C         |
| PART NUMBER:   | 35-00-0247-1 | SHEET: | 2 of 3    |

1 2 3 4 5 6

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



JEWEL LIGHT LED PCB

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|                           |                                   |
|---------------------------|-----------------------------------|
| COMPANY:                  | LINE 6                            |
| TITLE:                    | A15: SV UI<br>JEWEL LIGHT LED PCB |
| PROGRAM:                  | PADS LOGIC 2004                   |
| REV:                      | A                                 |
| FILENAME:                 |                                   |
| SCALE: 1:1                | SIZE: C                           |
| PART NUMBER: 35-00-0247-2 | SHEET: 3 OF 3                     |

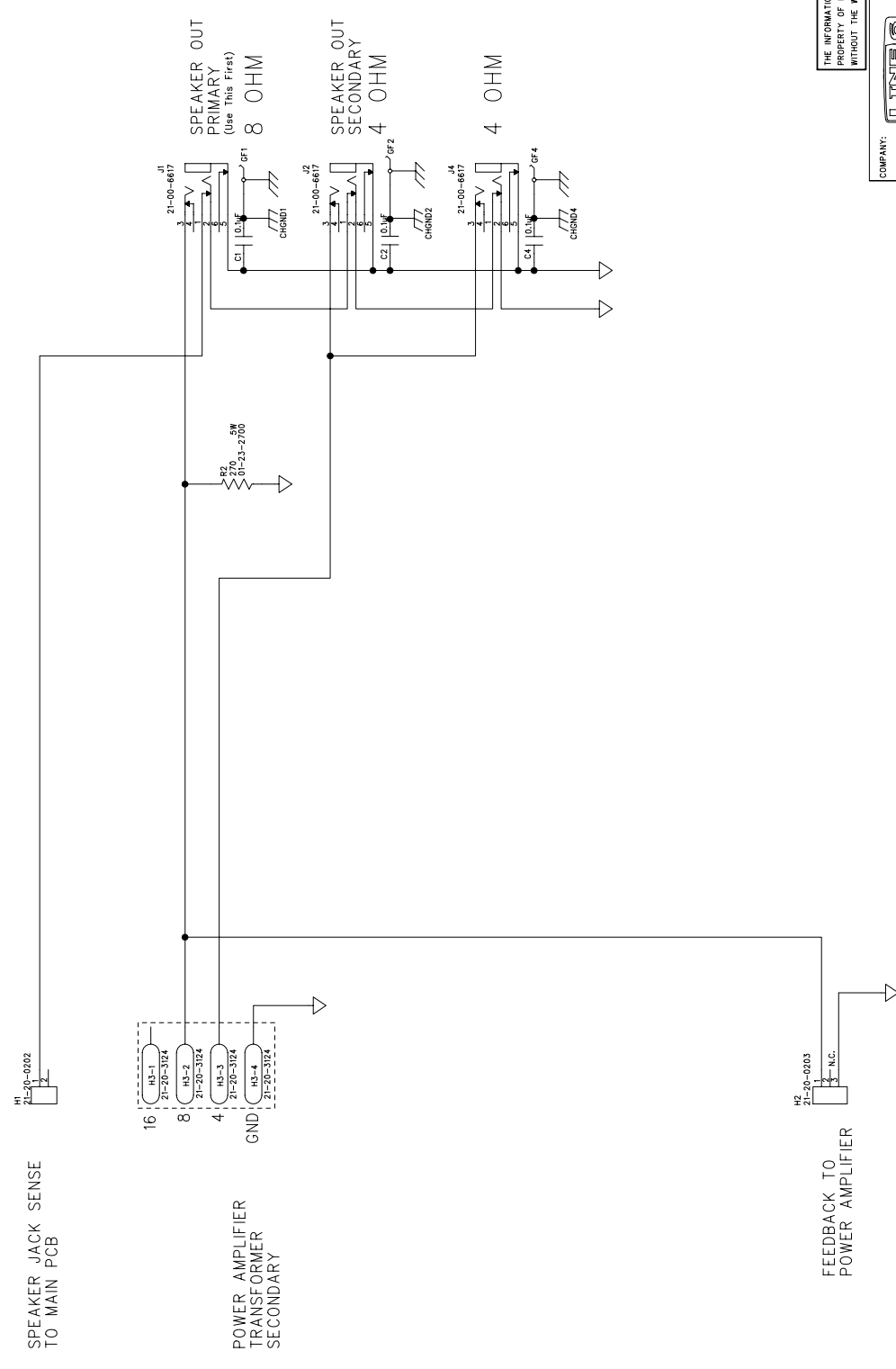
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|----------|--------------|
| DATE:    | 6.07.2007    |
| DRAWN:   | D. MOLNAR    |
| CHECKED: | review panel |

**PRELIMINARY DRAWINGS  
FOR QUOTATION PURPOSES ONLY  
DO NOT USE FOR PRODUCTION**

1 2 3 4 5 6

D C B A

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



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|              |                          |
|--------------|--------------------------|
| COMPANY:     | LINE 6                   |
| TITLE:       | A15: SV40-50 SPEAKER OUT |
| PROGRAM:     | PADS LOGIC 2004          |
| REV:         | B                        |
| FILENAME:    |                          |
| SCALE:       | 1:1                      |
| SIZE:        | C                        |
| PART NUMBER: | 35-00-0248               |
| SHEET:       | 1 OF 1                   |

|          |              |        |           |
|----------|--------------|--------|-----------|
| DRAWN:   | D. MOLNAR    | DATED: | 7/31/2007 |
| CHECKED: | review panel | DATED: |           |

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