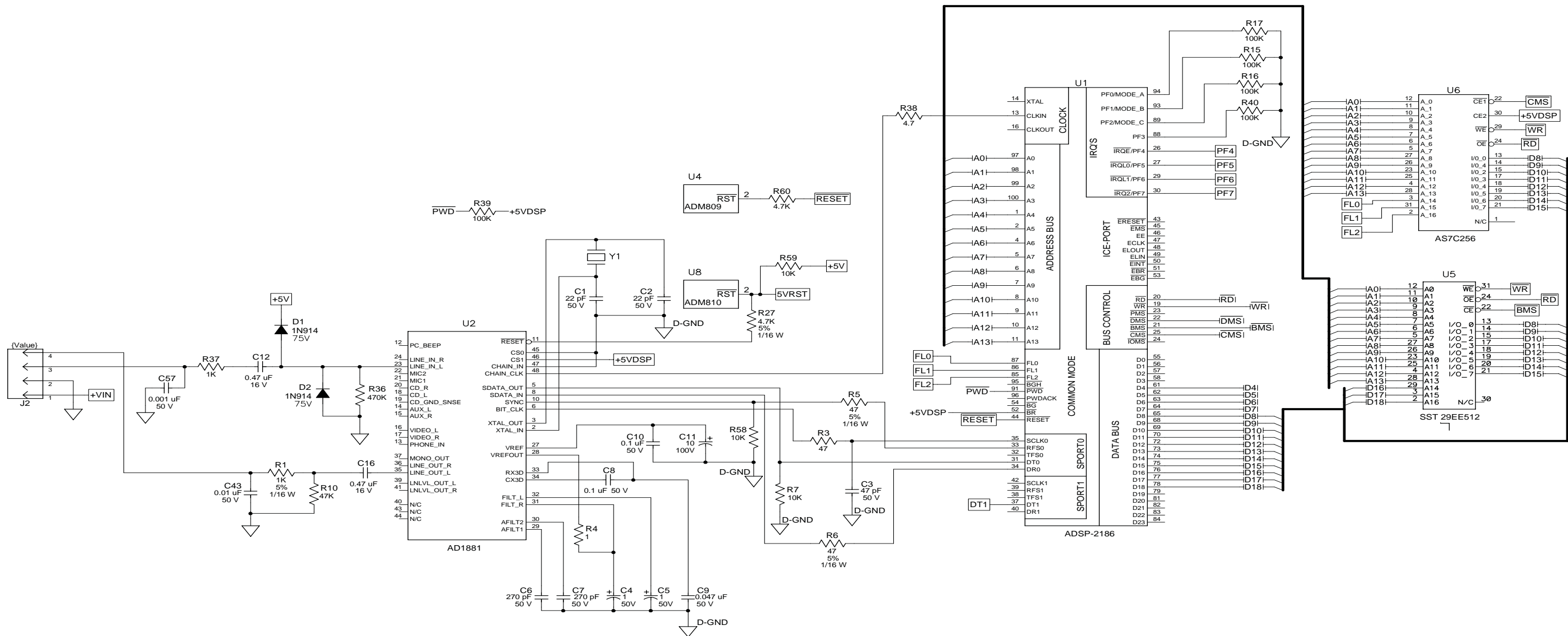


1

2

3

4



SHEET 1 AND 2 REPRESENT -01 AND -07

**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

**NOTES:**  
1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.  
2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.  
3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

Power Table						
Ref Des	Device(Type)	Package	+5VA/D	+5VRST	+5VDSP	+5V D-GND
U1	37S18601	TQFP100			90,67,59,36,18,15	92,80,71,66,60,41,28,17,12,3
U2	37S88101	ST-48	38,25	9,1		42,26,7,4
U4	37S18103	SOT-23	3			1
U5	3700101_32PLCC	32PLCC			32,1	16
U6	37S87201	SOJ32.3			32	16
U8	37S18102	SOT-23			3	1

REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
3	5-3-02	ADDED -18 AND -19		N00819	RLB	
2	11-28-01	ADDED DASH -15, -16 AND -17		N00746	RLB	

1	9-29-00	ADDED DASH -10,-12 & -14	D000717	RLB		
0	4-28-00	CONTROL ISSUE		RLB		
A		INITIAL ISSUE				
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
<b>Signatures:</b>		<b>Date:</b>				
Drawn:	RLB	10-5-99				
Checked:			First Used On:			
Released:						
Plot Date: Mon May 06, 2002	Drawing Size: C	Drawing Title: <b>DSP EFFECTS BD</b>				
Plot Time: 08:00:10	Drawing Type: Schematic	Drawing Number: <b>07S886-XX</b>				
Tolerance:	Class Code: NONE	Sheet 1 of 18				

A

B

C

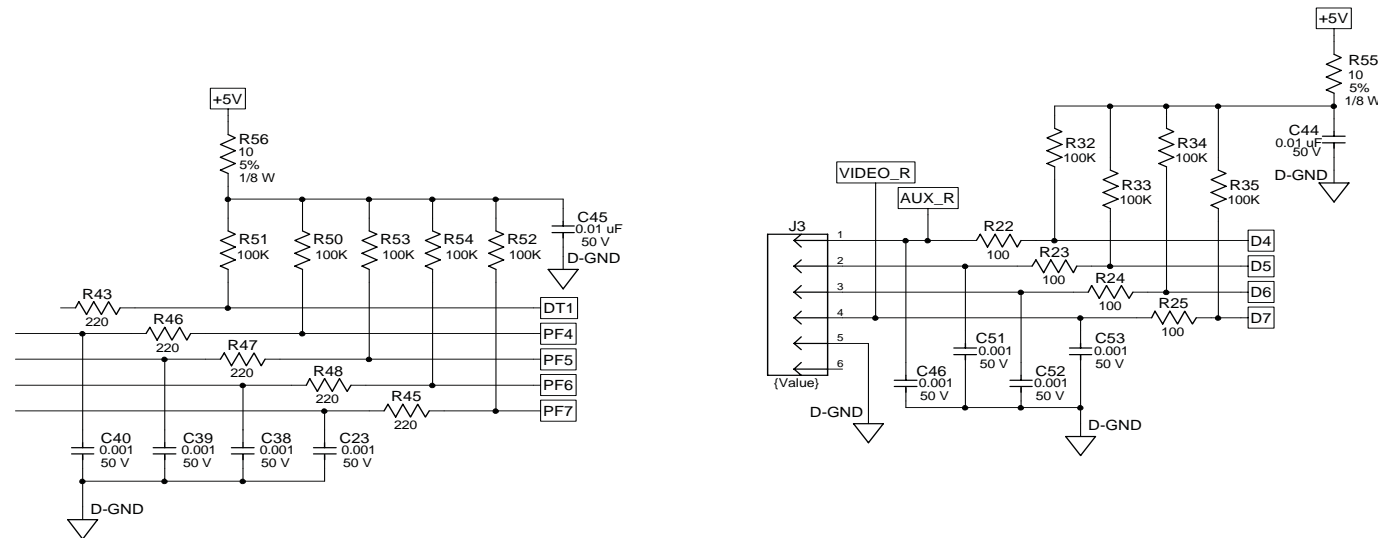
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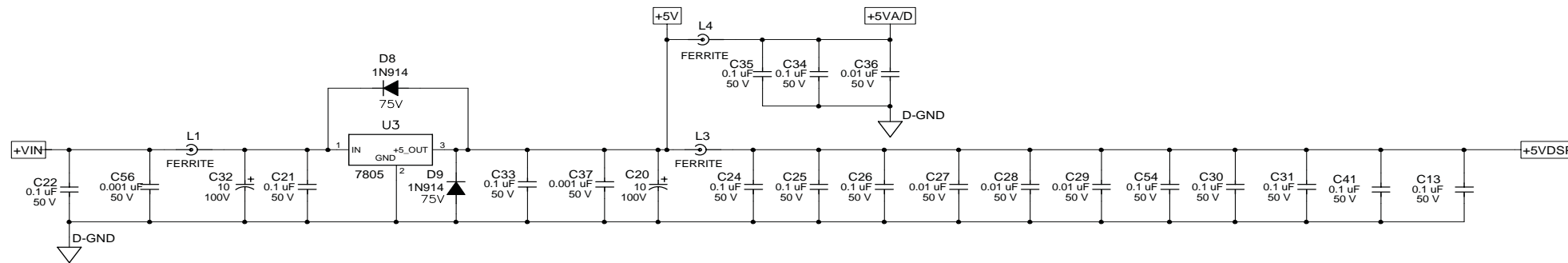
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1



2

2



3

3

SHEET 1 AND 2 REPRESENT -01 AND -07

**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

- NOTES:**
- 1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
  - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
  - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

1	9-29-00	ADDED DASH -10,-12 & -14	D000717	RLB		
0	4-28-00	CONTROL ISSUE		RLB		
A		INITIAL ISSUE				
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
Signatures:			Date:			
Drawn: RLB			10-5-99			
Checked:			First Used On:			
Released:			11880 Borman Drive, St. Louis, MO 63146			
Plot Date: Mon May 06, 2002		Drawing Size: C		Drawing Title:		
Plot Time: 08:00:10		Drawing Type: Schematic		DSP EFFECTS BD		
Tolerance:		Class Code: NONE		Drawing Number:		
		Sheet 2 of 18		07S886-XX		

4

4

A

B

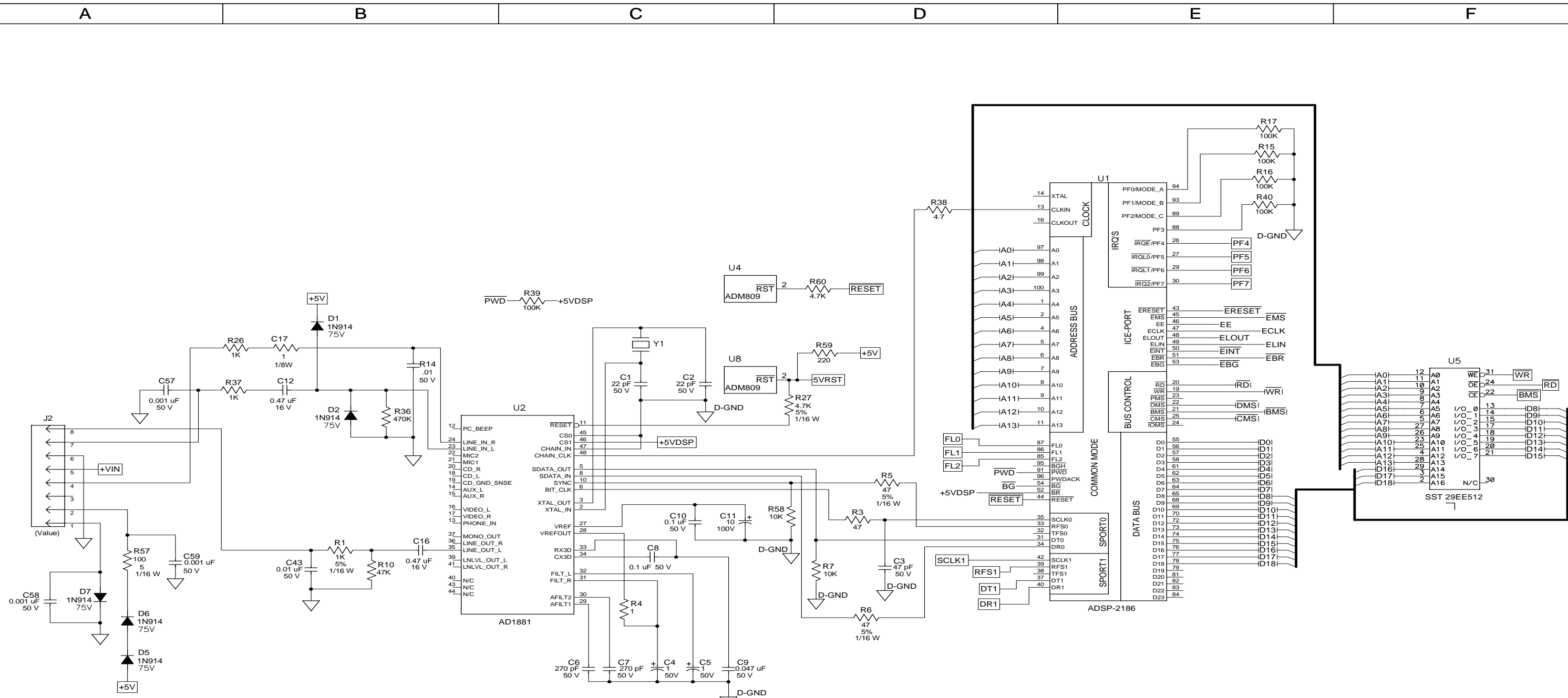
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D

E

F

PWB1



SHEET 3 AND 4 REPRESENT -02, -03, -04 AND -08

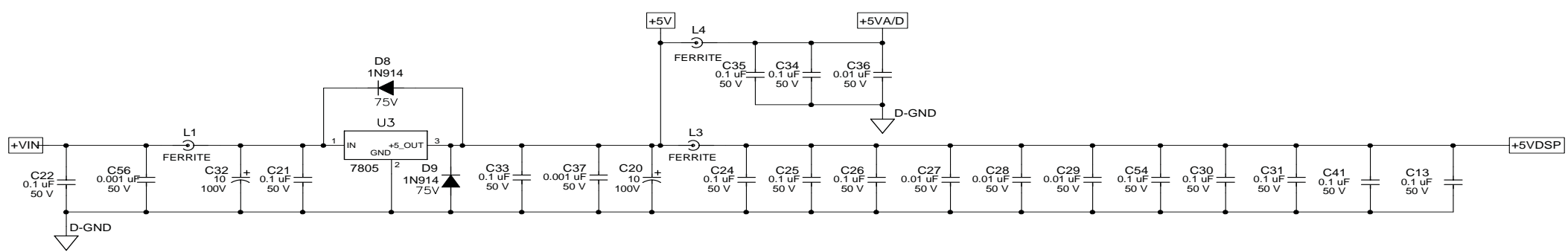
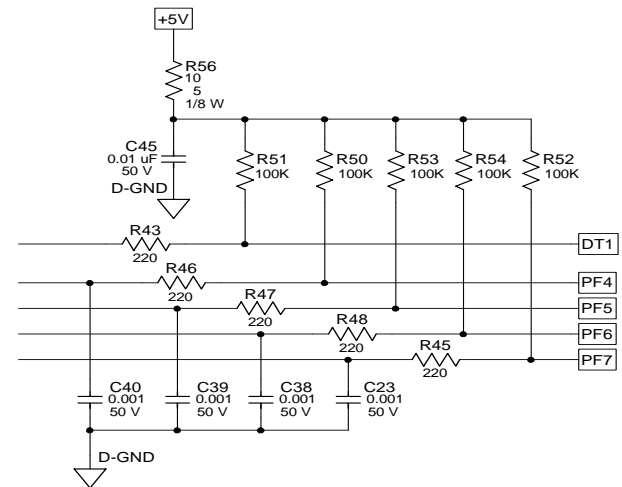
**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

- NOTES:**
- 1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
  - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
  - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

Power Table						
Ref Des	Device(Type)	Package	+5VA/D	+5VRS1	+5VDSP	+5V D-GND
U1	37S18601_	TQFP100			90,67,59,36,18,15	92,80,71,66,60,41,28,17,12,3
U2	37S88101_	ST-48	38,25		9,1	42,26,7,4
U4	37S18103_	SOT-23		3		1
U5	3700101_	32PLCC			32,1	16
U8	37S18103_	SOT-23				3

REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
3	5-3-02	ADDED -18 AND -19		N00819	RLB	
2	11-28-01	ADDED DASH -15, -16 AND -17		N00746	RLB	

1	9-29-00	ADDED DASH -10, -12 & -14	D000717	RLB		
0	4-28-00	CONTROL ISSUE		RLB		
A		INITIAL ISSUE				
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
<b>Signatures:</b>			<b>Date:</b>			
Drawn: RLB			10-5-99		11880 Borman Drive, St. Louis, MO 63146	
Checked:					First Used On:	
Released:					Drawing Title:	
Plot Date: Mon May 06, 2002			Drawing Size: C		Drawing Number:	
Plot Time: 08:02:51			Drawing Type: Schematic		07S886-XX	
Tolerance:			Class Code: NONE		Sheet 3 of 18	



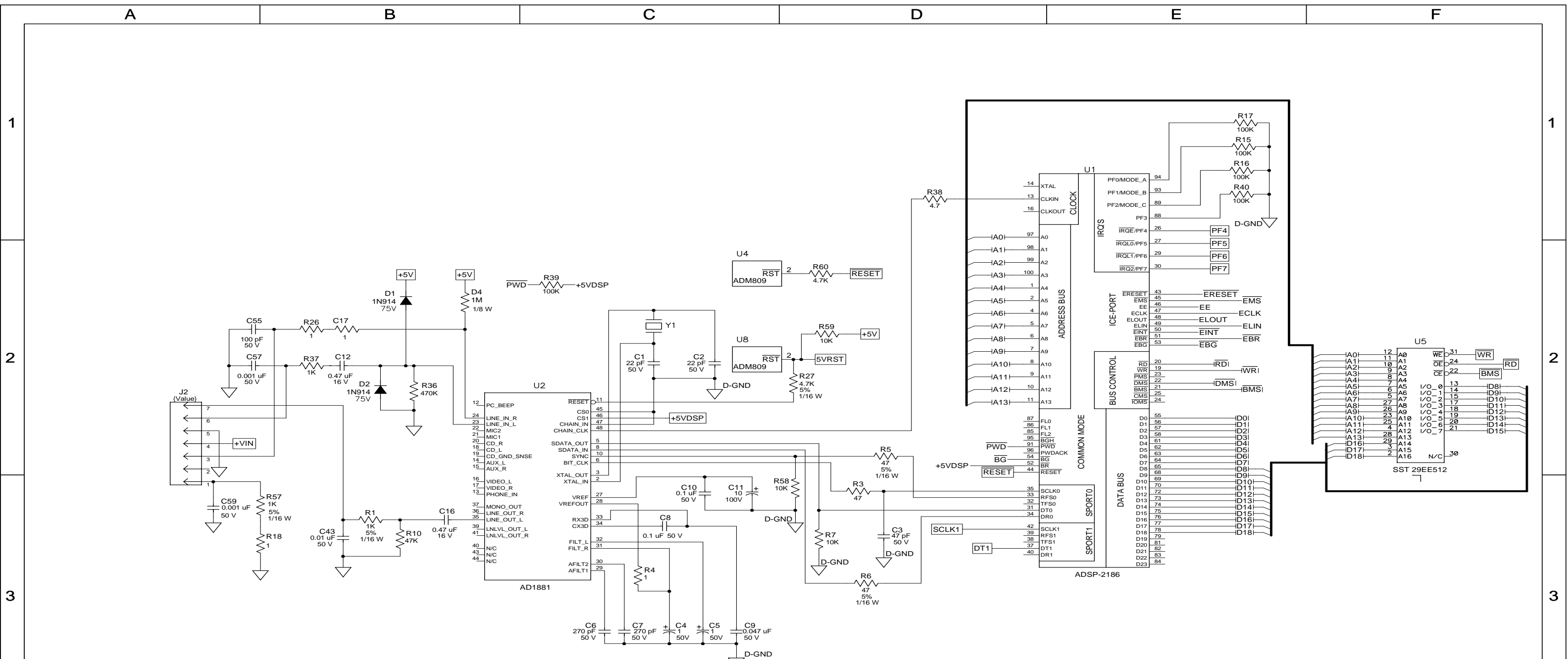
SHEET 3 AND 4 REPRESENT -02, -03, -04 AND -08

**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

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3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
3	5-3-02	ADDED -18 AND -19	N00819	RLB		
2	11-28-01	ADDED DASH -15, -16 AND -17	N00746	RLB		

1	9-29-00	ADDED DASH -10, -12 & -14	D000717	RLB		
0	4-28-00	CONTROL ISSUE		RLB		
A		INITIAL ISSUE				
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
Signatures:			Date:		 11880 Borman Drive, St. Louis, MO 63146	
Drawn: RLB			10-5-99			
Checked:					First Used On:	
Released:					Drawing Title:	
Plot Date: Mon May 06, 2002			Drawing Size: C		Drawing Title: <b>DSP EFFECTS BD</b>	
Plot Time: 08:02:51			Drawing Type: Schematic		Drawing Number:	
Tolerance:			Class Code: NONE		Drawing Number: <b>07S886-XX</b>	
			Sheet 4 of 18			



SHEET 5 AND 6 REPRESENT -05, -06 AND -09

**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

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3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

Power Table						
Ref Des	Device(Type)	Package	+5VA/D	+5VRS1	+5VDSP	D-GND
U1	37S18601_	TQFP100			90,67,59,36,18,15	92,80,71,66,60,41,28,17,12,3
U2	37S88101_	ST-48	38,25		9,1	42,26,7,4
U4	37S18103_	SOT-23		3		1
U5	3700101_	32PLCC			32,1	16
U8	37S18103_	SOT-23				3

REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
3	5-3-02	ADDED -18 AND -19		N00819	RLB	
2	11-28-01	ADDED DASH -15, -16 AND -17		N00746	RLB	

1	9-29-00	ADDED DASH -10, -12 & -14	D000717	RLB		
0	4-28-00	CONTROL ISSUE		RLB		
A		INITIAL ISSUE				
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
Signatures:			Date:			
Drawn: RLB			10-5-99		11880 Borman Drive, St. Louis, MO 63146	
Checked:					First Used On:	
Released:					Drawing Title:	
Plot Date: Mon May 06, 2002			Drawing Size: C		DSP EFFECTS BD	
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			Sheet 5 of 18			



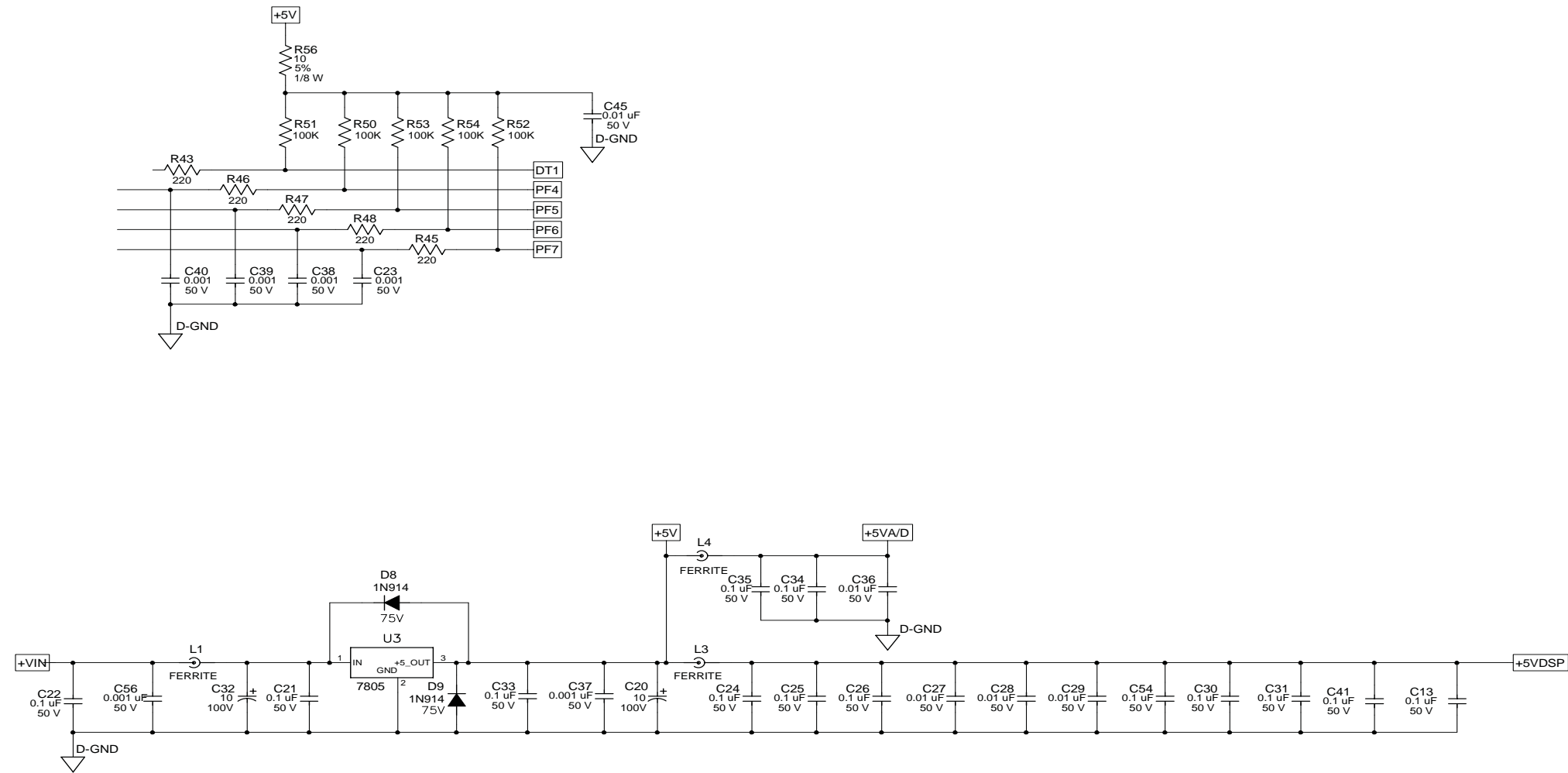
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DSP Effects Board PCB Schematics

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06B886-01B



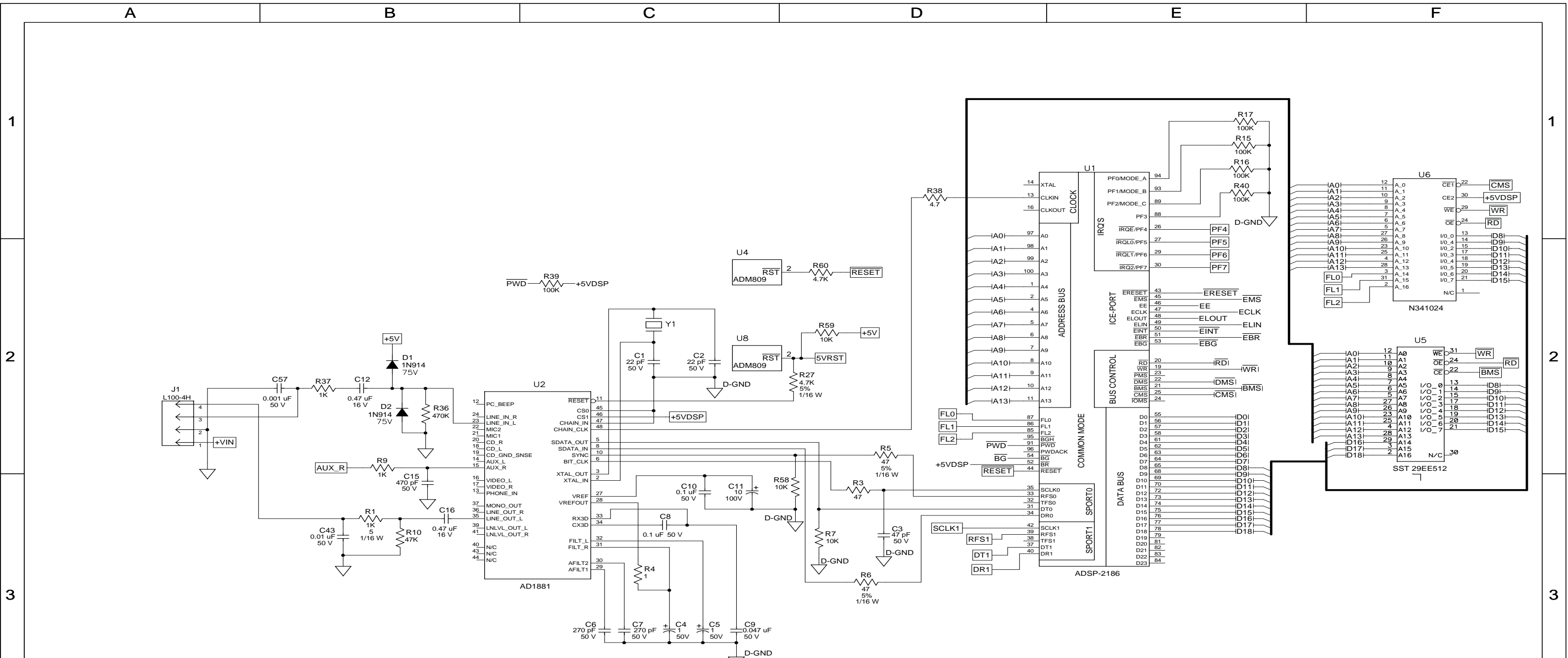
SHEET 5 AND 6 REPRESENT -05, -06 AND -09

**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

- NOTES:**
- 1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
  - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
  - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
3	5-3-02	ADDED -18 AND -19	N00819	RLB		
2	11-28-01	ADDED DASH -15, -16 AND -17	N00746	RLB		

1	9-29-00	ADDED DASH -10, -12 & -14	D000717	RLB		
0	4-28-00	CONTROL ISSUE		RLB		
A		INITIAL ISSUE				
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
Signatures:			Date:		 11880 Borman Drive, St. Louis, MO 63146	
Drawn: RLB			10-5-99			
Checked:			Released:		First Used On:	
Plot Date: Mon May 06, 2002			Drawing Size: C		Drawing Title: DSP EFFECTS BD	
Plot Time: 08:05:11			Drawing Type: Schematic		Drawing Number: 07S886-XX	
Tolerance:			Class Code: NONE		Sheet 6 of 18	



SHEET 7 AND 8 REPRESENT - 10

**CAUTION:**  
 THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

**NOTES:**  
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 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

Power Table						
Ref Des	Device(Type)	Package	+5VA/D	SVRST	+5VDS	D-GND
U1	37S18601	TQFP100			90,67,59,36,18,15	92,80,71,66,60,41,28,17,12,3
U2	37S88101	ST-48	38,25		9,1	42,26,7,4
U4	37S18103	SOT-23		3		1
U5	3700101_32PLCC	32PLCC			32,1	16
U6	37S87201	SOJ32.3			32	16
U8	37S18103	SOT-23			3	1

REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
3	5-3-02	ADDED DASH -18 & -19	N00819	RLB		
2	11-28-01	ADDED DASH -15, -16 & -17	N00746	RLB		
1	9-29-00	ADDED DASH -10, -12 & -14	D000717	RLB		

THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.

<b>Signatures:</b>		<b>Date:</b>	
Drawn: RLB		10-5-99	
Checked:		Released:	
Plot Date: Mon May 06, 2002	Drawing Size: C	Drawing Title: PWA, DSP EFFECTS	
Plot Time: 08:07:13	Drawing Type: Schematic	Drawing Number: 07S886-XX	
Tolerance:	Class Code: NONE	Sheet 7 of 18	



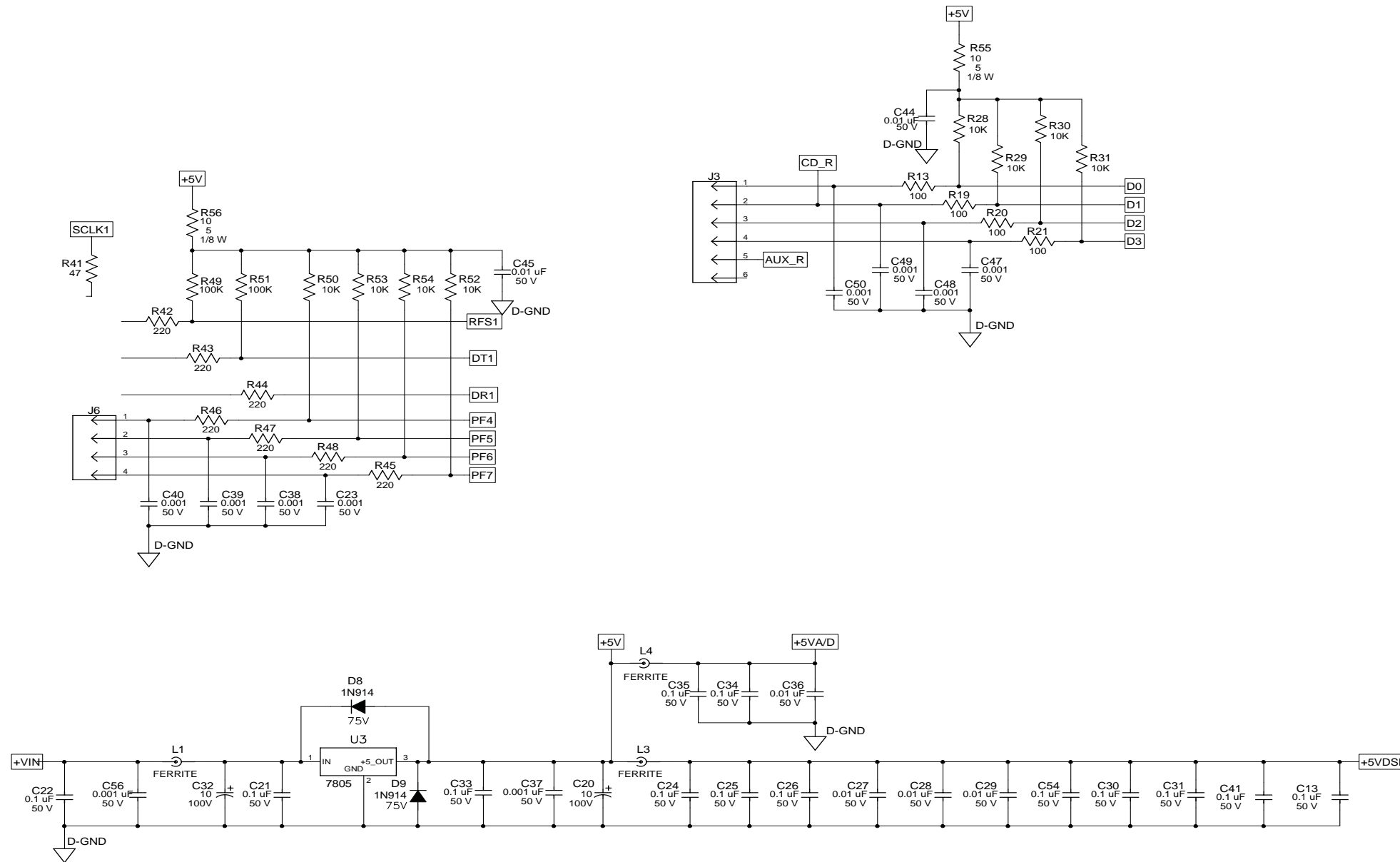
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06B886-01B



SHEET 7 AND 8 REPRESENT -10

**CAUTION:**  
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3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

3	5-3-02	ADDED DASH -18 & -19	N00819	RLB		
2	11-28-01	ADDED DASH -15, -16 & -17	N00746	RLB		
1	9-29-00	ADDED DASH -10, -12 & -14	D000717	RLB		
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
Signatures:			Date:		 11880 Borman Drive, St. Louis, MO 63146	
Drawn: RLB			10-5-99			
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Plot Date: Mon May 06, 2002		Drawing Size: C		Drawing Title: PWA, DSP EFFECTS		
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Tolerance:		Class Code: NONE		Sheet 8 of 18		



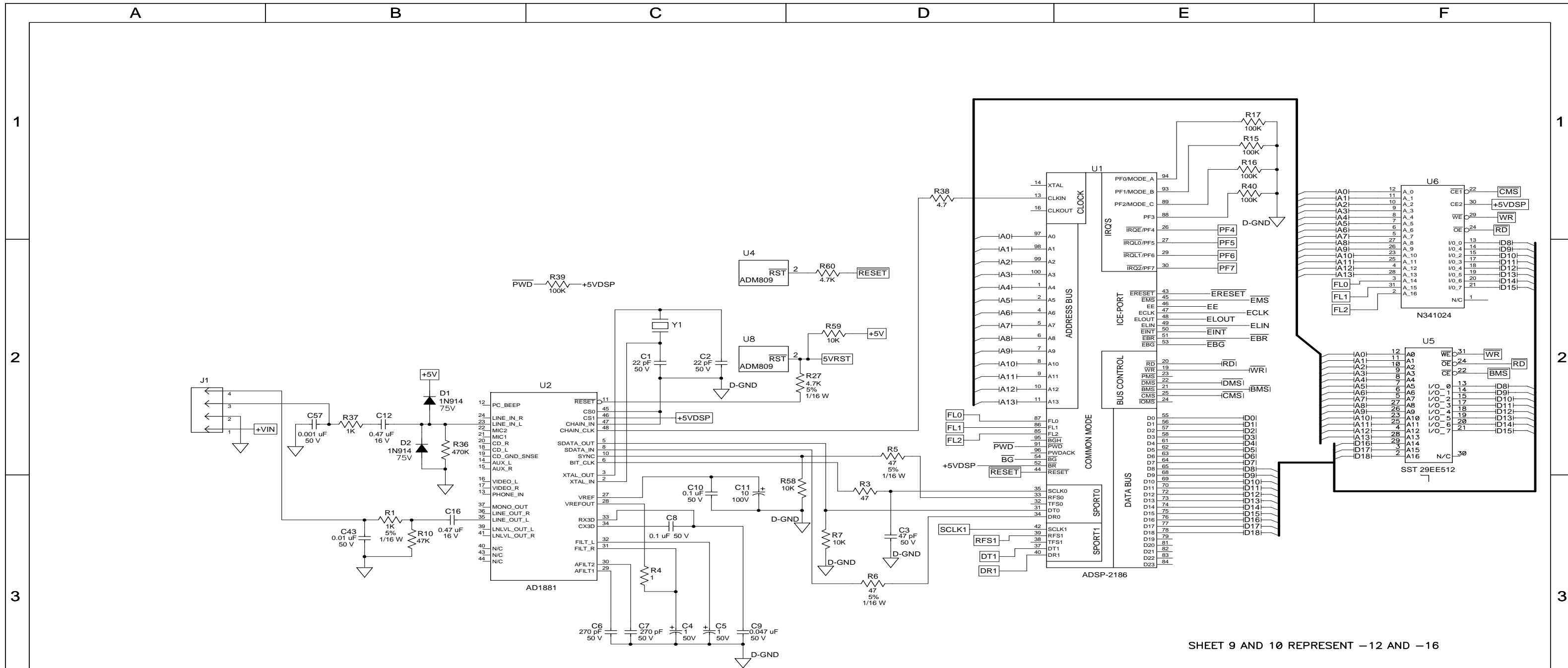
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PAGE 8





SHEET 9 AND 10 REPRESENT -12 AND -16

**CAUTION:**  
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**NOTES:**  
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Power Table						
Ref Des	Device(Type)	Package	+5VA/D	SVRST	+5VDS	D-GND
U1	37S18601	TQFP100			90,67,59,36,18,15	92,80,71,66,60,41,28,17,12,3
U2	37S88101	ST-48	38,25	9,1		42,26,7,4
U4	37S18103	SOT-23	3			1
U5	3700101_32PLCC	32PLCC			32,1	16
U6	37S87201	SOJ32.3			32	16
U8	37S18103	SOT-23			3	1

3	5-3-02	ADDED DASH -18 & -19	N00819	RLB		
2	11-28-01	ADDED DASH -15, -16 & -17	N00746	RLB		
1	9-29-00	ADDED DASH -10, -12 & -14	D000746	RLB		
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date

THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.

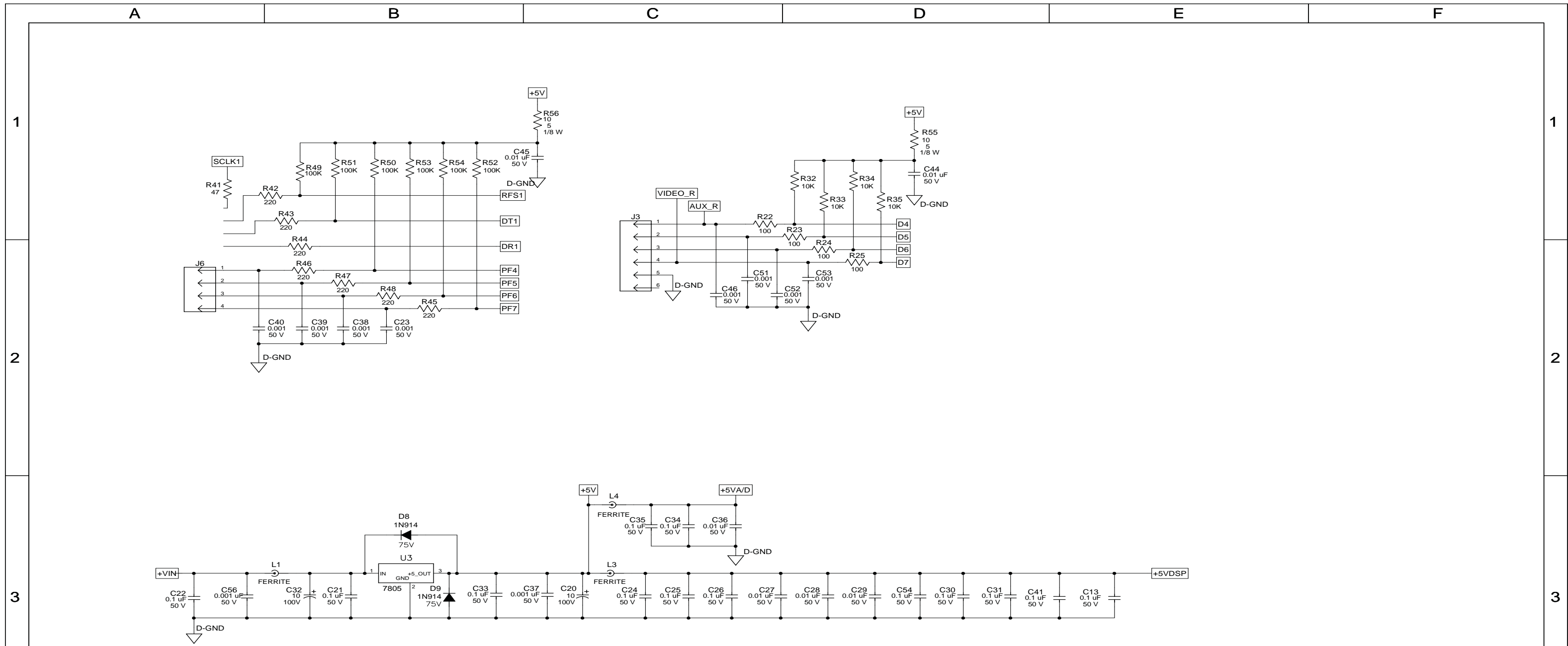
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Plot Date: Mon May 06, 2002  
 Plot Time: 08:09:27

Drawing Size: C  
 Drawing Type: Schematic  
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 Sheet 9 of 18

11880 Borman Drive, St. Louis, MO 63146  
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 Drawing Number: **07S886-XX**

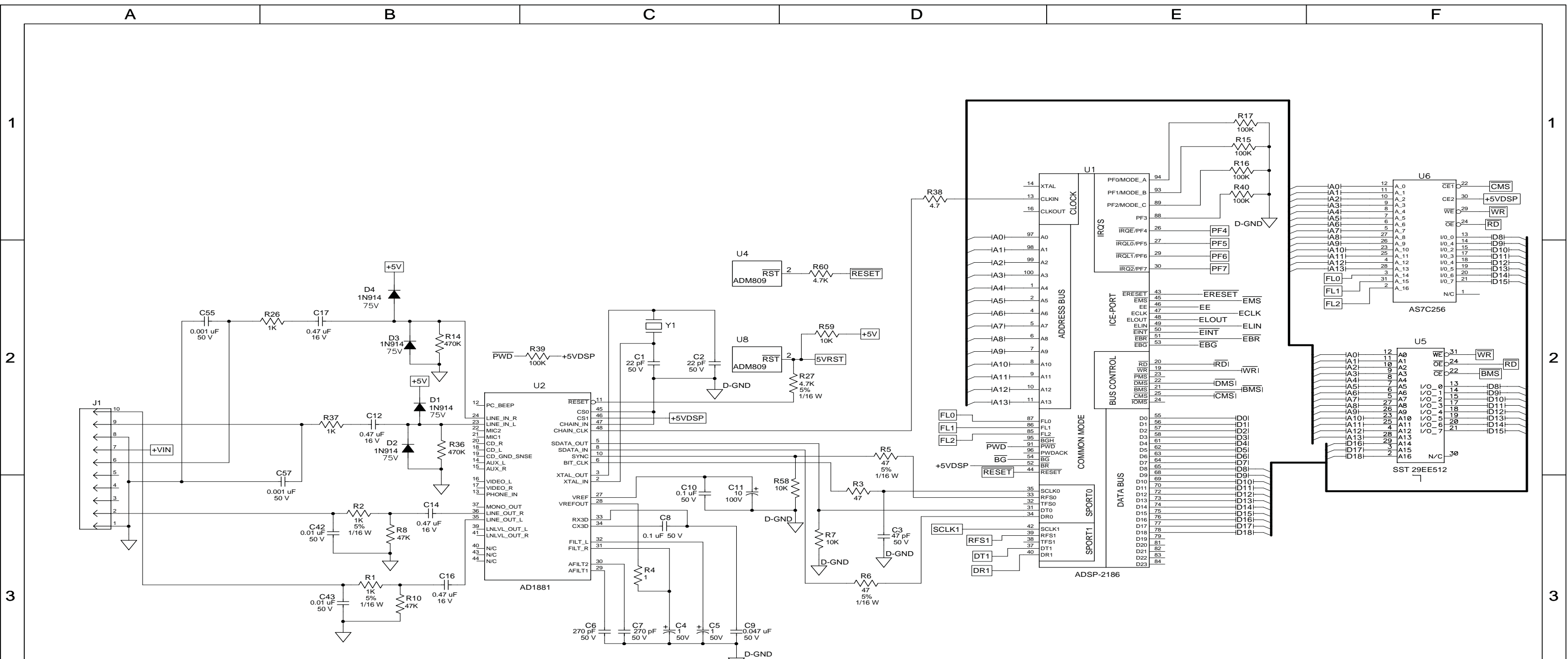


SHEET 9 AND 10 REPRESENT -12 AND -16

**CAUTION:**  
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**NOTES:**  
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3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

3	5-3-02	ADDED DASH -18 & -19	N00819	RLB		
2	11-28-01	ADDED DASH -15, -16 & -17	N00746	RLB		
1	9-29-00	ADDED DASH -10, -12 & -14	D000746	RLB		
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
Signatures:			Date:		 11880 Borman Drive, St. Louis, MO 63146	
Drawn: RLB			10-5-99			
Checked:			Released:		First Used On:	
Plot Date: Mon May 06, 2002		Drawing Size: C		Drawing Title:		
Plot Time: 08:09:27		Drawing Type: Schematic		PWA, DSP EFFECTS		
Tolerance:		Class Code: NONE		Drawing Number:		
		Sheet 10 of 18		07S886-XX		



SHEET 11 AND 12 REPRESENT - 14

**CAUTION:**  
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 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.  
 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

Power Table						
Ref Des	Device(Type)	Package	+5VA/D	+5VRST	+5VDSP	+5V D-GND
U1	37S18601	TQFP100			90,67,59,36,18,15	92,80,71,66,60,41,28,17,12,3
U2	37S88101	ST-48	38,25	9,1		42,26,7,4
U4	37S18103	SOT-23	3			1
U5	3700101_32PLCC	32PLCC		32,1		16
U6	37S87201	SOJ32.3		32		16
U8	37S18103	SOT-23		3	1	

3	5-3-02	ADDED DASH -18 & -19	N00819			
2	11-28-01	ADDED DASH -15, -16 & -17	N00746			
1	9-29-00	ADDED DASH -10, -12 & -14	D000717			
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
<b>Signatures:</b>			<b>Date:</b>			
Drawn: RLB			10-5-99		11880 Borman Drive, St. Louis, MO 63146	
Checked:			Released:		First Used On:	
<b>Tolerance:</b>			<b>Drawing Size:</b> C		<b>Drawing Title:</b> DSP EFFECTS BD	
			<b>Drawing Type:</b> Schematic		<b>Drawing Number:</b> 07S886-XX	
			<b>Class Code:</b> NONE			
			Sheet 11 of 18			



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DSP Effects Board PCB Schematics

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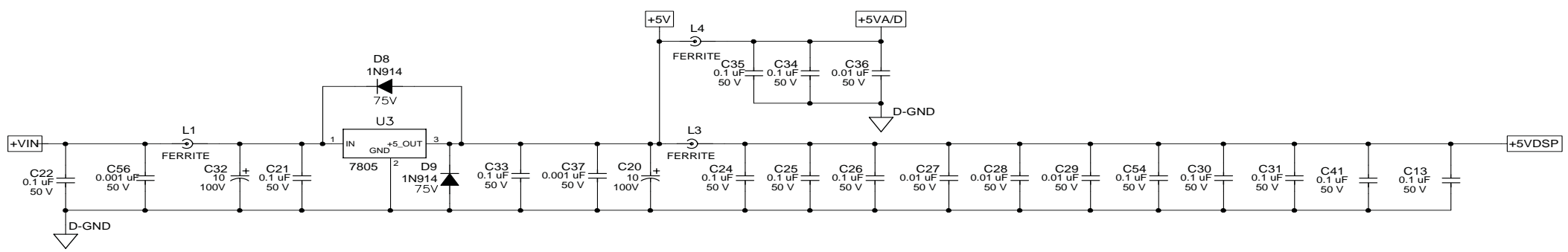
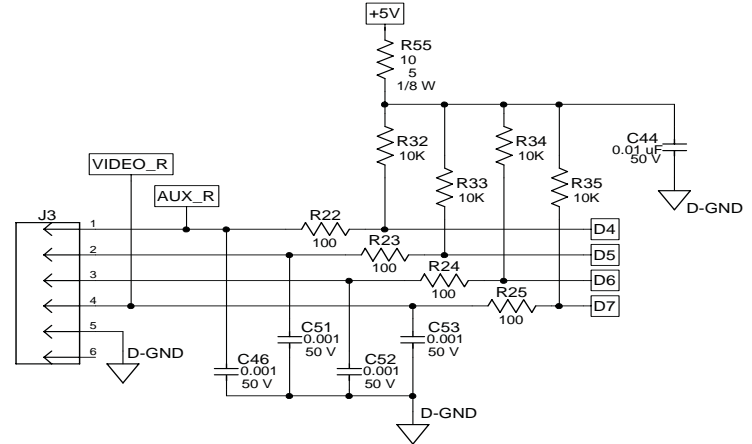
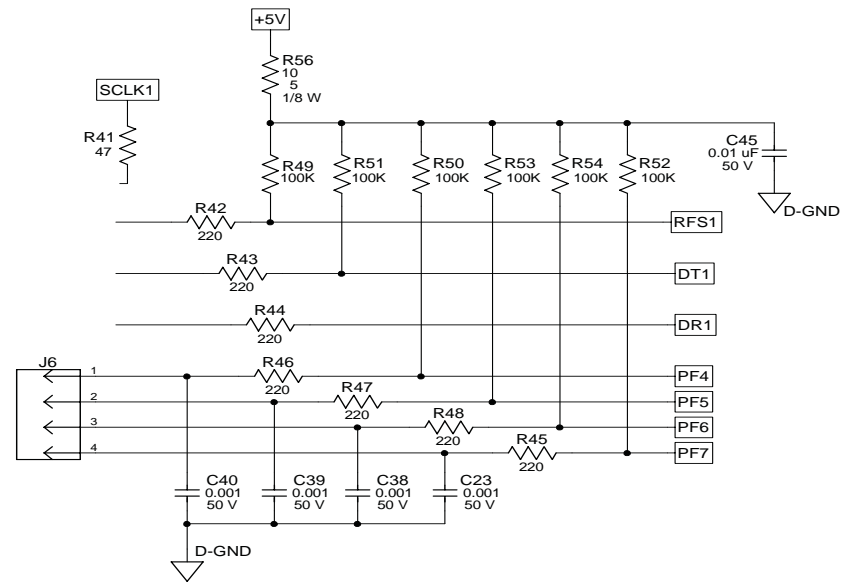
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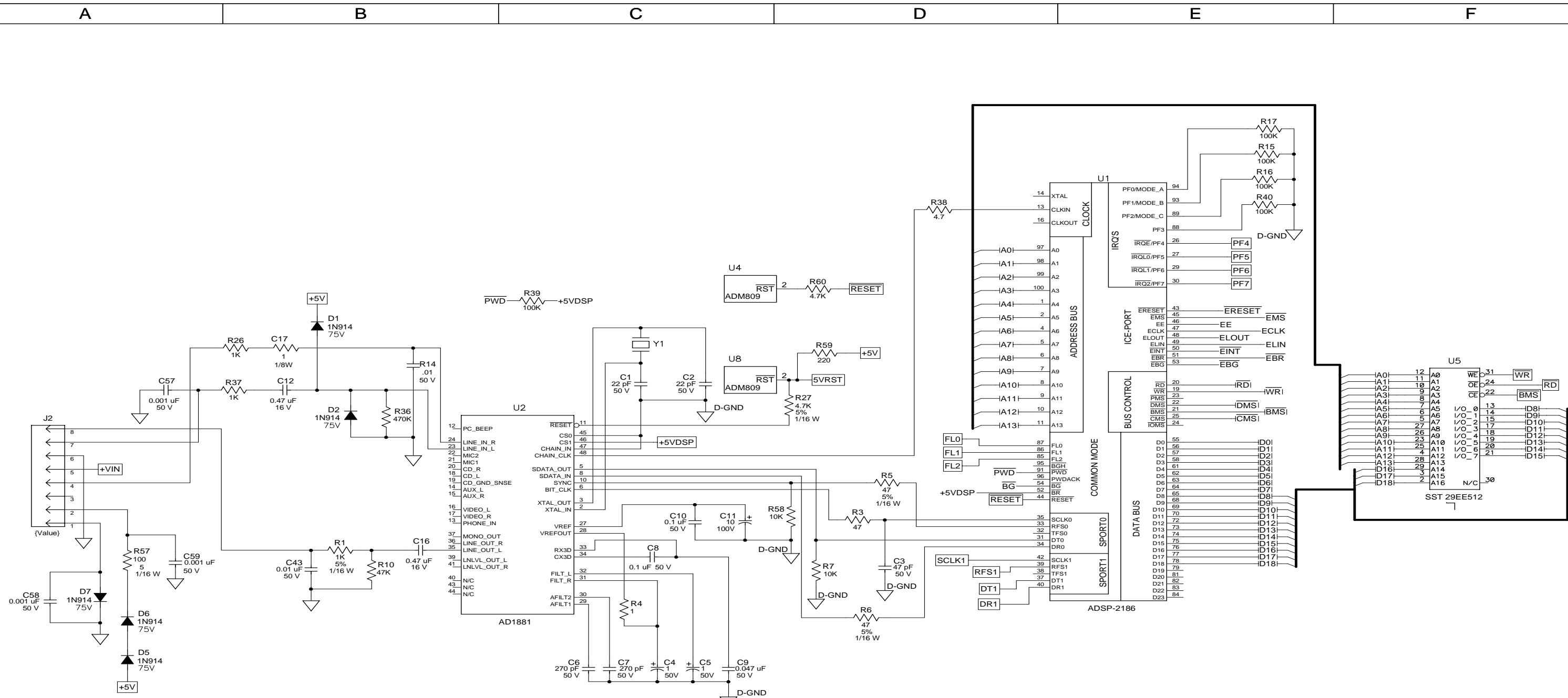
SHEET 11 AND 12 REPRESENT - 14

**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

**NOTES:**  
1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.  
2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.  
3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

3	5-3-02	ADDED DASH -18 & -19	N00819			
2	11-28-01	ADDED DASH -15, -16 & -17	N00746			
1	9-29-00	ADDED DASH -10, -12 & -14	D000717			
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC						
Signatures:			Date:		 11880 Borman Drive, St. Louis, MO 63146 First Used On:	
Drawn: RLB			10-5-99			
Checked:						
Released:						
Tolerance:		Drawing Size: C		Drawing Title: DSP EFFECTS BD		
		Drawing Type: Schematic		Drawing Number: 07S886-XX		
		Class Code: NONE				
		Sheet 12 of 18				





SHEET 13 AND 14 REPRESENT - 15

**CAUTION:**  
 THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

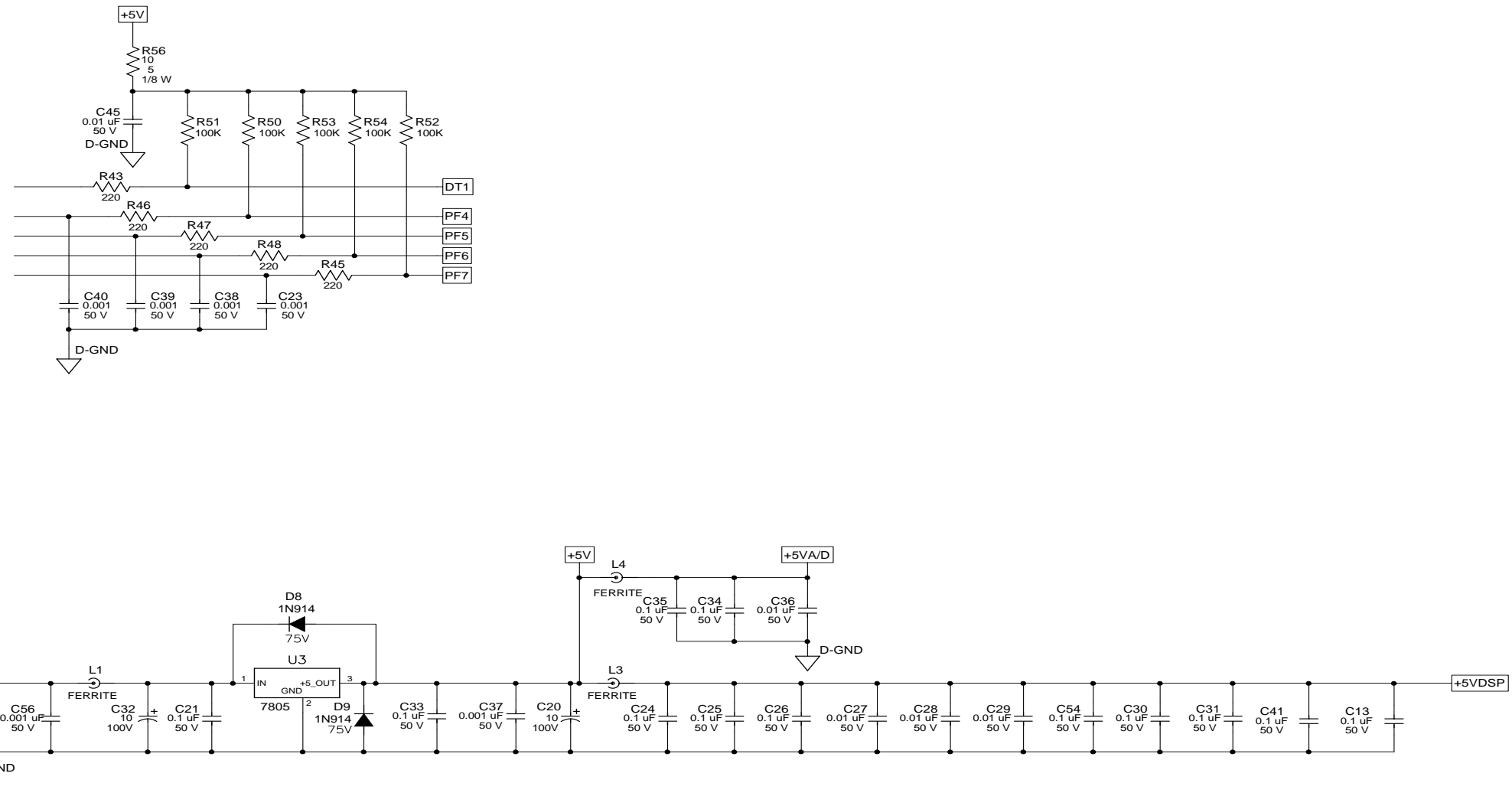
**NOTES:**  
 1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.  
 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.  
 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

Power Table						
Ref Des	Device(Type)	Package	+5VA/D	+5VRS1	+5VDSP	D-GND
U1	37S18601_	TQFP100			90,67,59,36,18,15	92,80,71,66,60,41,28,17,12,3
U2	37S88101_	ST-48	38,25		9,1	42,26,7,4
U4	37S18103_	SOT-23		3		1
U5	3700101_	32PLCC			32,1	16
U8	37S18103_	SOT-23				3

REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
3	5-3-02	ADDED DASH -18 & -19	N00819	RLB		
2	11-28-01	ADDED DASH -15, -16 & -17	N00746	RLB		

THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.

<b>Signatures:</b>		<b>Date:</b>	
Drawn: RLB		10-5-99	
Checked:		First Used On:	
Released:		Drawing Title:	<b>DSP EFFECTS BD</b>
Plot Date: Mon May 06, 2002	Drawing Size: C	Drawing Number:	<b>07S886-XX</b>
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Tolerance:	Class Code: NONE		
	Sheet 13 of 18		




SHEET 13 AND 14 REPRESENT -15

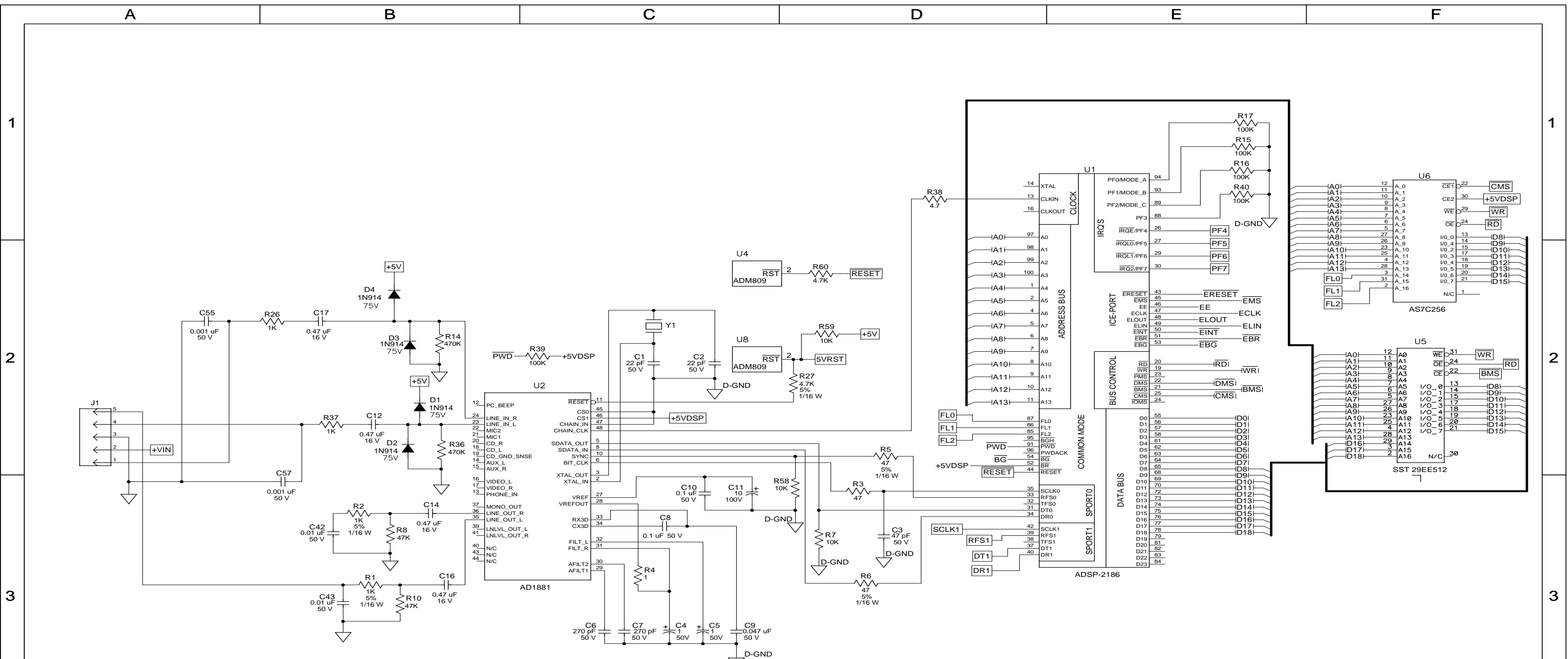
**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

- NOTES:**
- 1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
  - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
  - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
3	5-3-02	ADDED DASH -18 & -19	N00819	RLB		
2	11-28-01	ADDED DASH -15, -16 & -17	N00746	RLB		

THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.

<b>Signatures:</b>	<b>Date:</b>	
Drawn: RLB	10-5-99	11880 Borman Drive, St. Louis, MO 63146
Checked:		First Used On:
Released:		Drawing Title: <b>DSP EFFECTS BD</b>
Plot Date: Mon May 06, 2002	Drawing Size: <b>C</b>	Drawing Number: <b>07S886-XX</b>
Plot Time: 08:13:37	Drawing Type: Schematic	
Tolerance:	Class Code: NONE	
	Sheet 14 of 18	



SHEET 15 AND 16 REPRESENT -17 AND -18

**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

**NOTES:**  
1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.  
2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.  
3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

Power Table						
Ref Des	Device(Type)	Package	+5VA/D	+5VRST	+5VDSP	+5V D-GND
U1	37S18601	TQFP100			90,67,59,36,18,15	92,80,71,66,60,41,28,17,12,3
U2	37S88101	ST-48	38,25	9,1		42,26,7,4
U4	37S18103	SOT-23	3			1
U5	3700101_32PLCC	32PLCC		32,1		16
U6	37S87201	SOJ32.3		32		16
U8	37S18103	SOT-23			3	1

3	5-3-02	ADDED DASH -18 & -19	N00819			
2	11-28-01	ADDED DASH -15, -16 & -17	N00746			
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
Signatures:			Date:			
Drawn: RLB			10-5-99		11880 Borman Drive, St. Louis, MO 63146	
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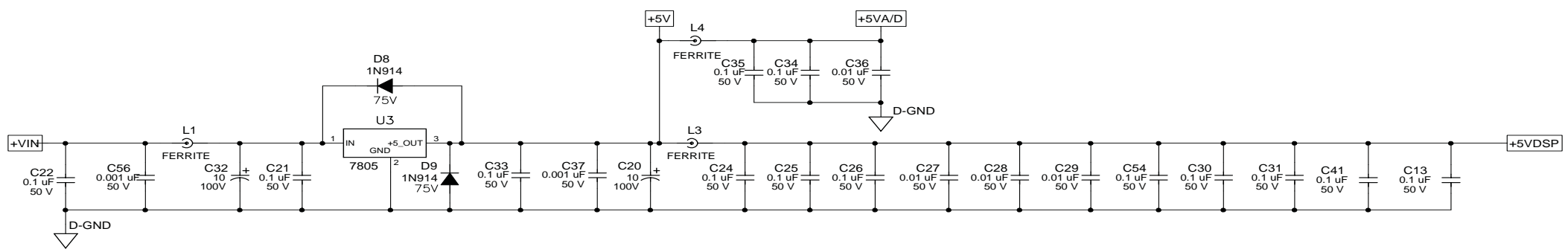
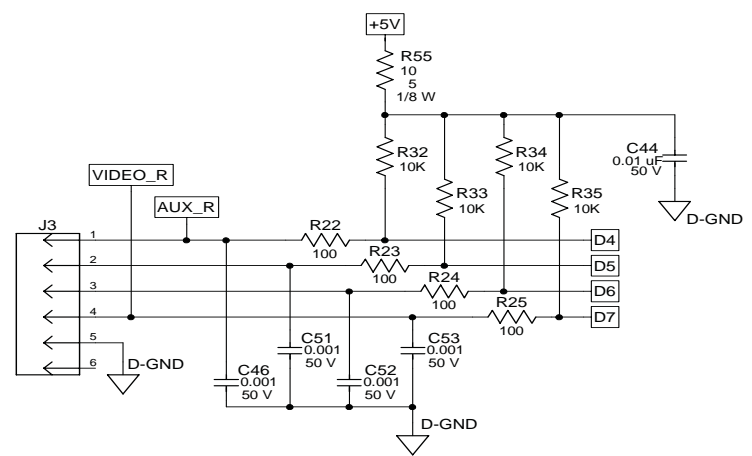
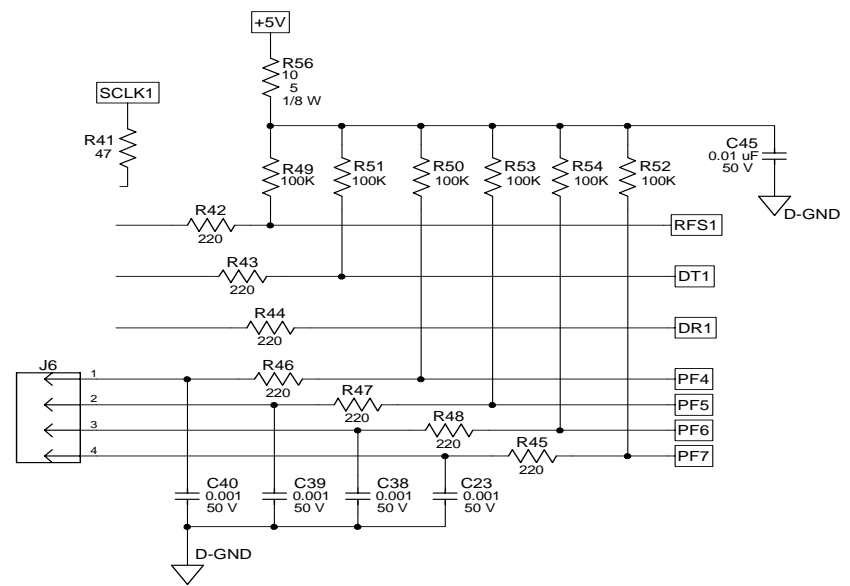


BA210SP

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DSP Effects Board PCB Schematics

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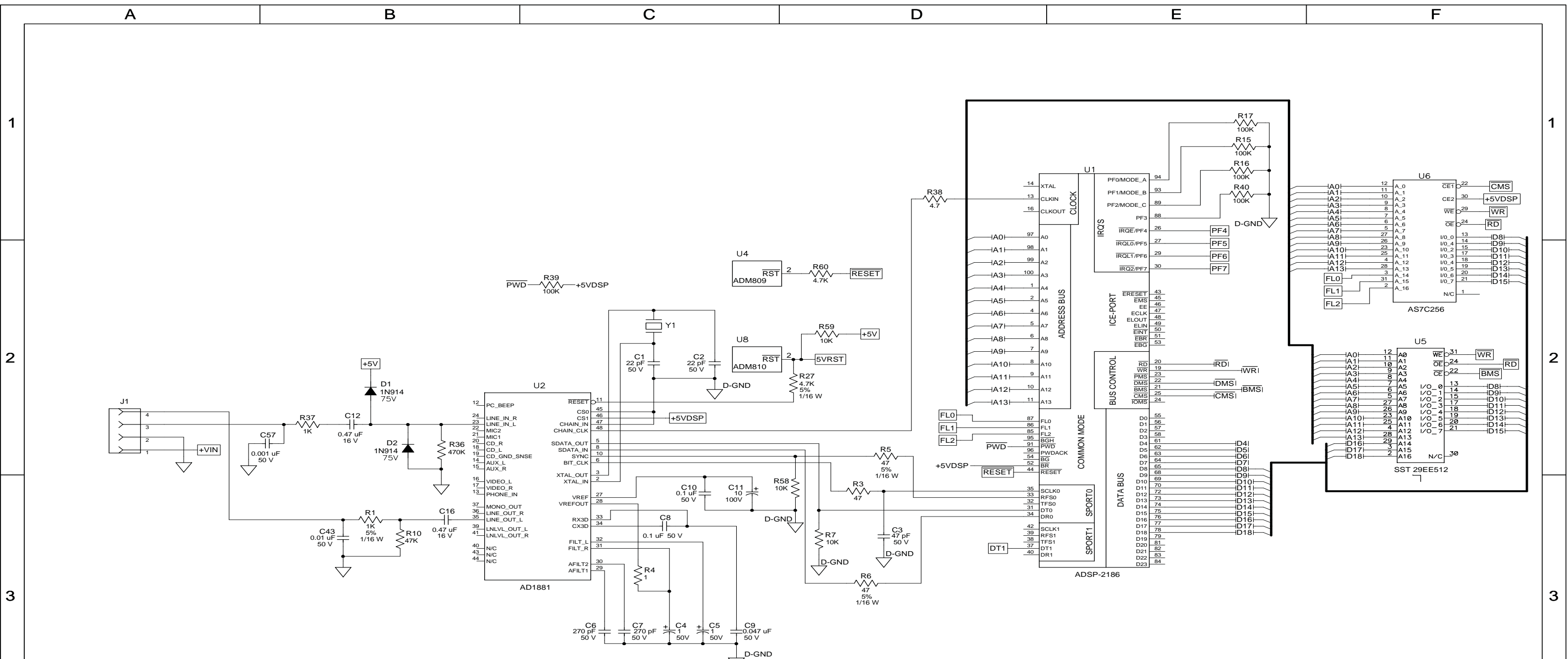
SHEET 15 AND 16 REPRESENT -17 AND -18

CAUTION:  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL.  
TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED  
SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND  
THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

NOTES:  
1) CAUTION: SHOCK HAZARD!!  
THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER  
AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE  
TOUCHING INTERNAL PARTS.  
2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL.  
CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.  
3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE  
AND 10 MEGOHM DIGITAL VOLTMETER.

3	5-3-02	ADDED DASH -18 & -19	N00819			
2	11-28-01	ADDED DASH -15, -16 & -17	N00746			
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC						
Signatures:			Date:		 11880 Borman Drive, St. Louis, MO 63146 First Used On: Drawing Title: <b>DSP EFFECTS BD</b> Drawing Number: <b>07S886-XX</b>	
Drawn: RLB			10-5-99			
Checked:						
Released:						
Tolerance:		Drawing Size: C				
		Drawing Type: Schematic				
		Class Code: NONE				
		Sheet 16 of 18				





SHEET 17 AND 18 REPRESENT - 19

**CAUTION:**  
 THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

**NOTES:**  
 1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.  
 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.  
 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

Power Table						
Ref Des	Device(Type)	Package	+5VA/D	+5VRST	+5VDS	D-GND
U1	37S18601	TQFP100			92,80,71,66,60,41,28,17,12,3	
U2	37S88101	ST-48	38,25	9,1	42,26,7,4	
U4	37S18103	SOT-23	3		1	
U5	3700101_32PLCC	32PLCC		32,1	16	
U6	37S87201	SOJ32.3		32	16	
U8	37S18102	SOT-23			3	1

3	5-3-02	ADDED -18 AND -19	N00819	RLB		
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
Signatures:			Date:		 11880 Borman Drive, St. Louis, MO 63146	
Drawn: RLB			10-5-99		First Used On:	
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Tolerance:		Class Code: NONE		Sheet 17 of 18		

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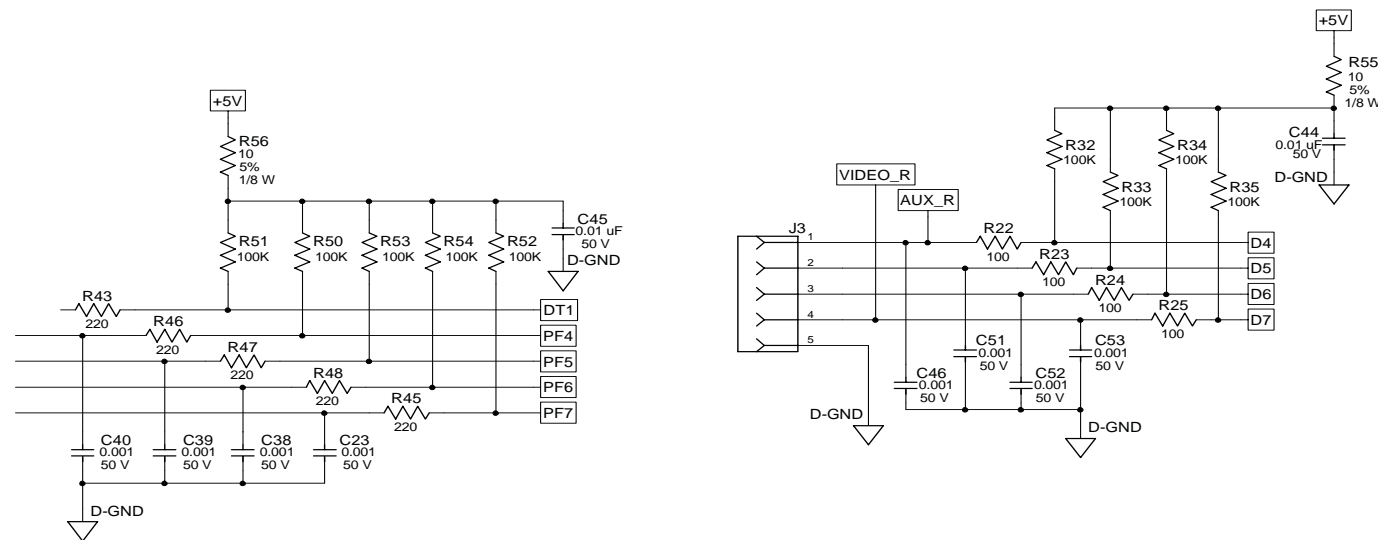
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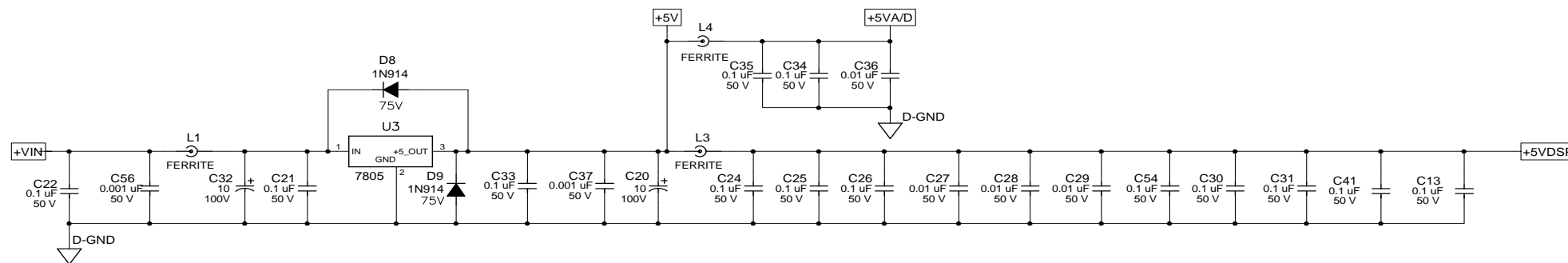


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SHEET 17 AND 18 REPRESENT -19

**CAUTION:**  
 THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL.  
 TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED  
 SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND  
 THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

- NOTES:**
- 1) CAUTION: SHOCK HAZARD!!  
 THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER  
 AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE  
 TOUCHING INTERNAL PARTS.
  - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL.  
 CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
  - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE  
 AND 10 MEGOHM DIGITAL VOLTMETER.

3	5-3-02	ADDED -18 AND -19	N00819	RLB		
REV	Date	DESCRIPTION	Ecr(s)/Ecn(s)	Chgd By	Appvd by	Date
THE INFORMATION CONTAINED ON THIS DRAWING IS PROPRIETARY TO ST. LOUIS MUSIC, INC.						
Signatures:			Date:			
Drawn: RLB			10-5-99			
Checked:			First Used On:			
Released:			11880 Borman Drive, St. Louis, MO 63146			
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Tolerance:		Class Code: NONE		Drawing Number:		
		Sheet 18 of 18		07S886-XX		

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