ECOs INCLUDED ON THIS SCHEMATIC/PCB REVISION		
ECO NO:	DATE:	DESCRIPTION:
	6/15/00	Changed wire colors in silkscreen No schematic changes between Rev:B & C

NEED TO CONNECT SET_MUTE

HEADPHONE CIRCUITRY

HEADPHONE OUTPUT

STEREO

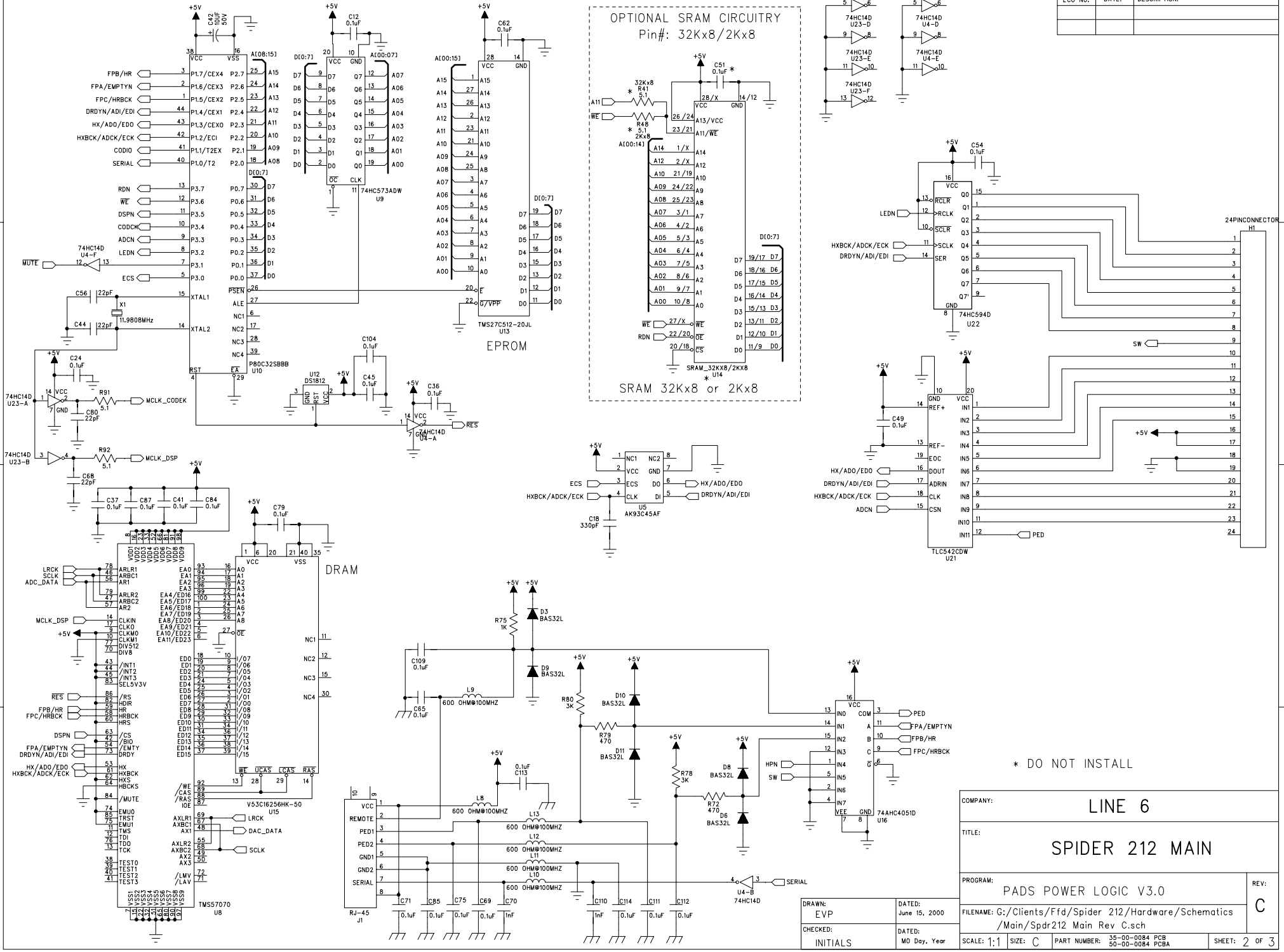
8 OHM

8 OHM

Headphones	OUT	IN	OUT	IN	OUT	IN	OUT	IN
Stereo	IN	IN	OUT	OUT	IN	IN	OUT	OUT
Input	OUT	OUT	OUT	OUT	IN	IN	IN	IN
HPN	1.80	2.00	2.20	2.50	2.81	3.33	3.91	5.00

COMPANY:	LINE 6		
TITLE:	SPIDER 212 MAIN		
PROGRAM:	PADS POWER LOGIC V3.0		REV: C
FILENAME:	G:/Clients/Ffd/Spider 212/Hardware/Schematics/Main/Spdr212 Main Rev C.sch		
DRAWN: EVP/GNS	DATED: June 15, 2000		
CHECKED: INITIALS	DATED: MO Day. Year		
SCALE: 1:1	SIZE: C	PART NUMBER: 35-00-0084 PCB, 50-00-0084 PCBA	SHEET: 1 OF 3

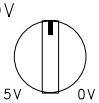
ECOs INCLUDED ON THIS SCHEMATIC/PCB REVISION		
ECO NO:	DATE:	DESCRIPTION:

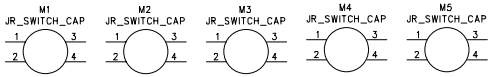


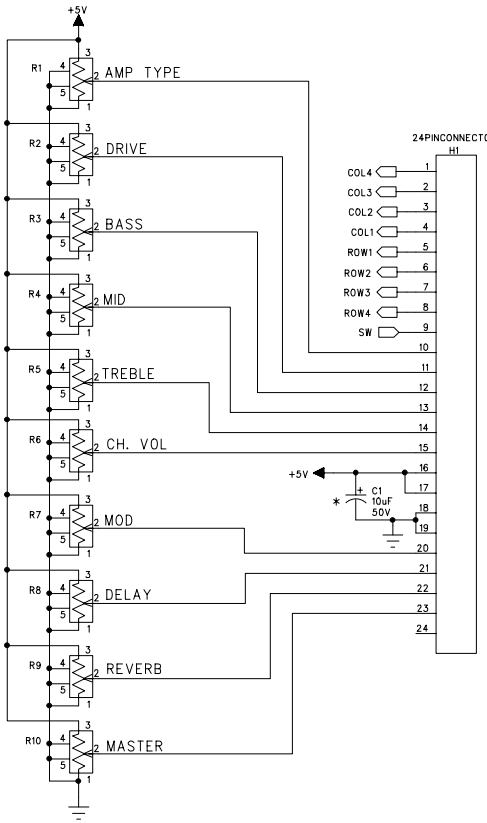
COMPANY:	LINE 6	
TITLE:	SPIDER 212 MAIN	
PROGRAM:	PADS POWER LOGIC V3.0	REV: C
FILENAME:	G:/Clients/Ffd/Spider 212/Hardware/Schematics /Main/Spdr212 Main Rev C.sch	
DRAWN: EVP	DATED: June 15, 2000	
CHECKED: INITIALS	DATED: MO Day. Year	
SCALE: 1:1	SIZE: C	PART NUMBER: 35-00-0084 PCB 50-00-0084 PCBA
SHEET: 2 OF 3		

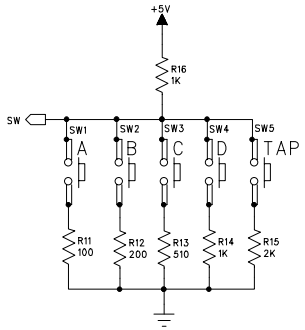
POTS ARE BACKWARDS!
MIN: 5V
MAX: 0V

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

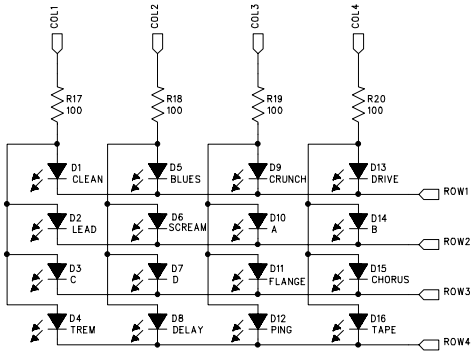








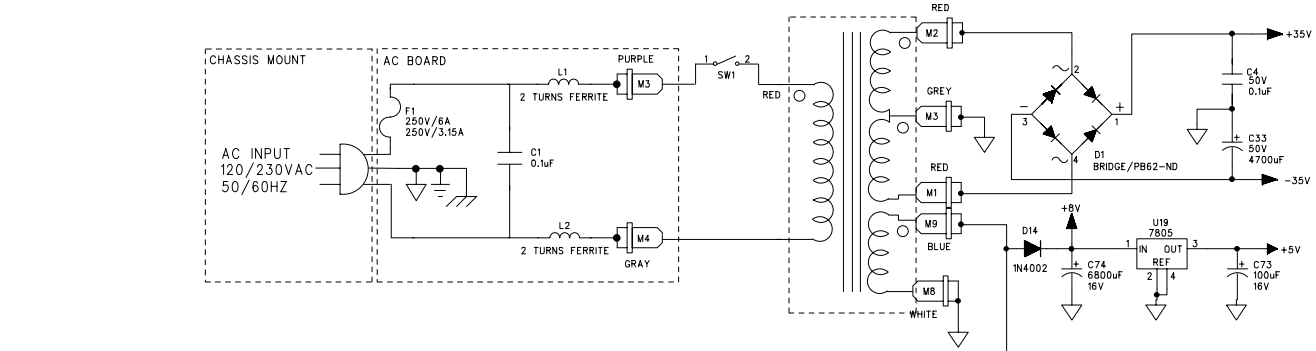
SWITCH	SW1	SW2	SW3	SW4	SW5
VOLTAGE	0.45V	0.83V	1.69V	2.50V	3.33V

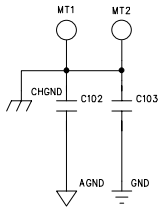


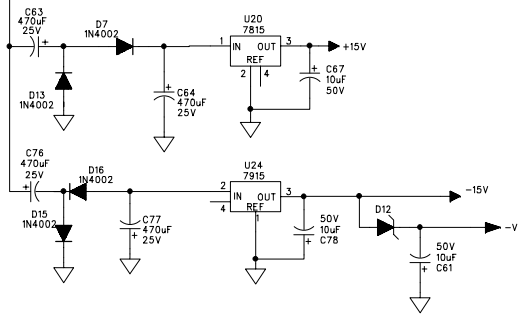
* Do Not Install

COMPANY:	LINE 6		
TITLE:	SPIDER FRONT PANEL BOARD		
PROGRAM:	PADS POWER LOGIC V3.0		REV: 4
FILENAME:	G:/Clients/Ffd/Spider/PADS/Schematics /Spdr FP Rev4.sch		
DRAWN: Erik VP	DATED: Oct 26, 1999		
CHECKED: INITIALS	DATED: MO Day, Year		
SCALE: 1:1	SIZE: C	PART NUMBER: xx-xx-xxxx	SHEET: 1 OF 1

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







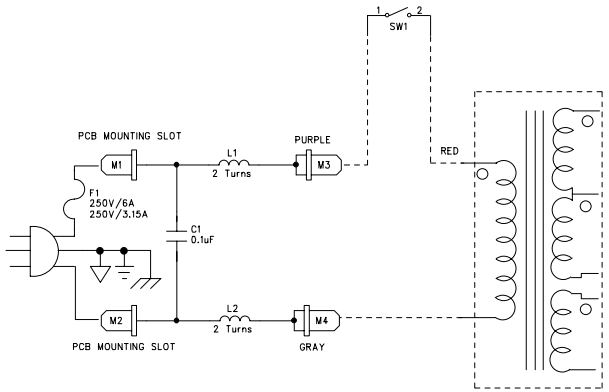
COMPANY:	LINE 6
TITLE:	SPIDER 212 MAIN BOARD
PROGRAM:	PADS POWER LOGIC V3.0
REV:	C
FILENAME:	G:/Clients/Ffd/Spider 212/Hardware/Schematics /Main/Spdr212 Main Rev C.sch
SCALE: 1:1	SIZE: C
PART NUMBER:	35-00-0084 PCB 50-00-0084 PCBA
SHEET:	3 OF 3

DRAWN: EVP	DATED: June 15, 2000
CHECKED: Initials	DATED: Date

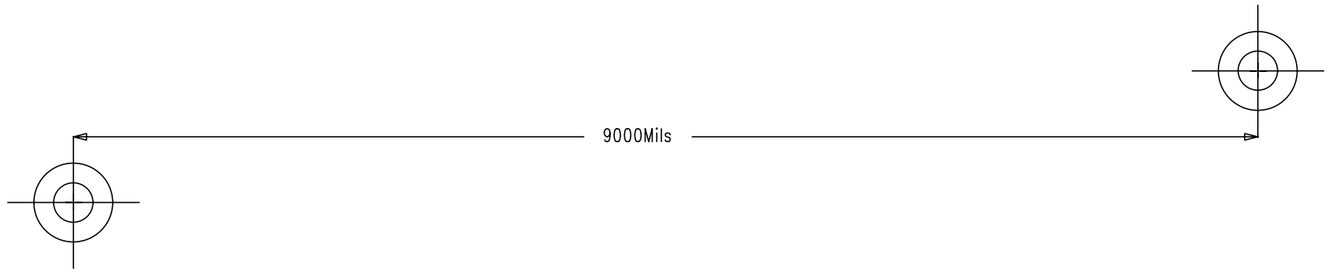
ECOs INCLUDED ON THIS SCHEMATIC/PCB REVISION		
ECO NO:	DATE:	DESCRIPTION:

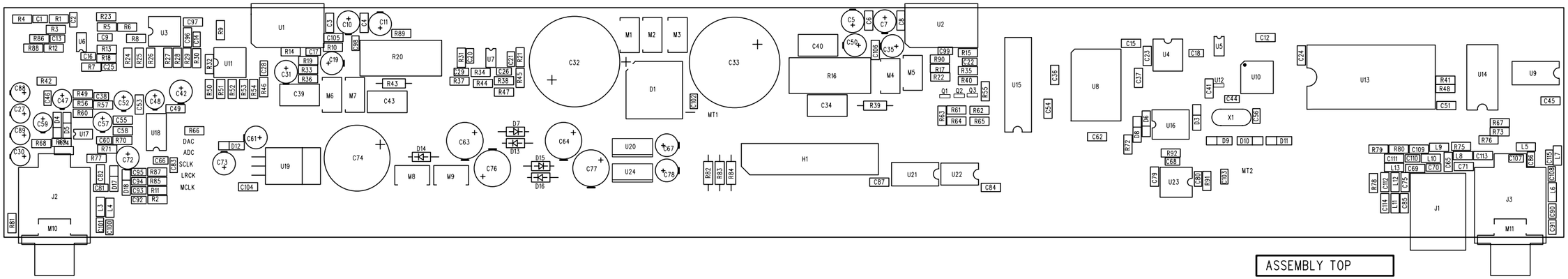
NOT MOUNTED ON PCB.
SOLDER WIRES BETWEEN
SOCKET AND PCB.

AC INPUT
120/230VAC
50/60HZ



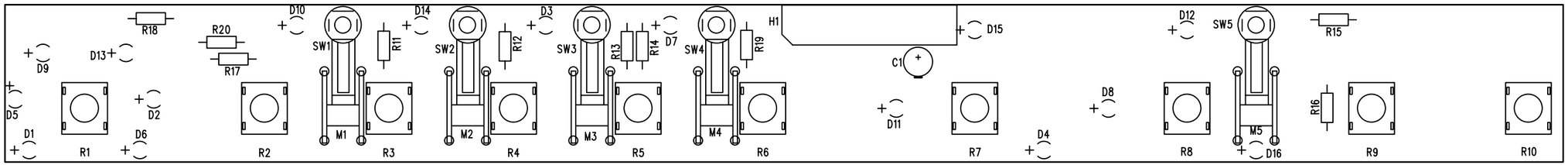
DRAWN: EMPals	DATED: Sept 23, 1999	COMPANY: LINE 6	
CHECKED: Initials	DATED: Date	TITLE: SPIDER AC BOARD	
		PROGRAM: PADS POWER LOGIC V3.0	REV: 0
		FILENAME: Data on Ffd/Clients/Ffd/Projects/[illegible]/Spider/PCB.Rev0.sch	
		SCALE: 1:1 SIZE: C PART NUMBER: XX-XX-XXXX	SHEET: 1 OF 1

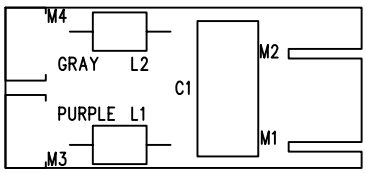




ASSEMBLY TOP

COMPANY: LINE 6		
PROGRAM: PADS POWER PCB 3.5.1		
FILE: G:\CLIENTS\FFD\Spider 212\Hardware\PCB\Main\Rev C\Spider212 Main Rev C.pcb		
SCALE: 1:1	REV: C	DATE: June 15, 2000
TITLE: Spider 212 Main Board		


R18
R20
D10
D14
D3
D13
D9
R17
SW1
R11
SW2
R12
SW3
R13
R14
D7
SW4
R19
H1
D15
C1
D12
SW5
R15
D5
D1
D6
D2
R1
R2
M1
R3
M2
R4
M3
R5
M4
R6
D11
R7
D4
D8
R8
M5
D16
R16
R9
R10



SILKSCREEN TOP

LINE 6

Spider 212 Parts List

Items: 99 SPIDER212120

Level	Seq	Component-Item	Component-Description							Qty-Per-Parent
Parent Item: 99 SPIDER212120 Spider 212 120v 2x12" 100w combo amp										
1		11-20-1200	Speaker 12" 8R	0	EA	.0	A	Y	P Y	2.000000
1		11-30-8612	TRANS. 100/120 V, Spider 212	0	EA	.0	A	Y	P Y	1.000000
1		21-34-1014	CABLE ASSY, TRANSFORMER,WHITE, SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-34-1015	CABEL ASSY, TRANSFORMER TO AC SWITCH, BLACK, SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-34-1016	CABLE ASSY, TRANSFORMER, SECONDARY, BLUE, SPIDER 212	0	EA	.0	A	Y		1.000000
1		21-34-1017	CABLE ASSY, TRANSFORMER, SECONDARY, ORANGE, SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-34-1018	CABLE ASSY,TRANSFORMER,YELLOW, SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-34-1019	CABLE ASSY,AC SWITCH, BROWN, SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-34-1020	CABLE ASSY, SECONDARY, WHITE, SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-34-9004	Cable, AC recpt to power sw. Spider, dble insulated	0	EA	.0	A	Y	P Y	1.000000
1		21-36-0395	CABLE ASSY, SPEAKER,POSITIVE, RED, SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-36-0396	CABLE ASSY,SPEAKER,POSITIVE, BLACK, SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-36-0397	CABLE ASSY, SPEAKER,POSITIVE, WHITE,SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-36-0398	CABLE ASSY, SPEAKER,POSITIVE, BLACK, SPIDER 212	0	EA	.0	A	Y	P Y	1.000000
1		21-37-1160	CABLE,PWR UL/CSA,SJT,18awg,Blk	EL-302 grnded plug,EL701 Sockt						1.000000
		24-21-0002	Switch Actuator-Spider FrntPnl							5.000000
1		24-24-0606	Power Switch, Rocker - Spider							1.000000

1	30-00-0607	SCR 6-32 x 7/16 LG PHILLIPS PN H STL ZINC (W/ LK WASH)	2.000000
1	30-00-0617	Screw, #6 x 7/16" socket cap alloy	2.000000
1	30-00-1014	SCR, 10-32 x 7/8 LG, PHILLIPS PNH, STL, BLK	8.000000
1	30-00-1033	SCR, 10-32 x 3/8 LG, SCH STL, BLK OXIDE	4.000000
1	30-00-1128	SCR, 10-32 x 1 3/4 LG, OVAL ST SK, PHH, STL, BLK	4.000000
1	30-00-1632	SCR, 6-32 x 3/8 LG, PHILLIPS P H, STL, BLK	4.000000
1	30-00-6103	Nut,9MM hex panel,zinc M9-0.75 (Comes with 01-48-6103)	10.000000
1	30-03-0040	INSULATOR, MN#4-5	2.000000
1	30-03-0112	WASHER,FINISHING,FLANGED,NO.10 ,STL,BLK OXIDE	8.000000
1	30-03-0610	Washer, #6 internal lock	2.000000
1	30-06-0440	NUT .242 HEX NO.2 STL ZINC (FOR POWER AMP)	2.000000
1	30-06-0623	6-32 nut w/captive star washer	1.000000
1	30-06-0832	NUT .335 HEX 8-32 STL ZINC W/ TOOTH WASHER	4.000000
1	30-15-4019	BUTTON, MOUNTING, NYLON	2.000000
1	30-24-0003	CABLE TIE Panduit 3 7/8" clear Panduit PLT1M-M	11.000000
1	30-28-0212	Front panel,plastic,Spider212	1.000000
1	30-45-2000	KNOB PLASTIC	10.000000
1	30-51-2212	Chassis, Spider 212	1.000000
1	30-51-6013	HEAT SINK, 4.0 x 3.75 x 1.0, A	2.000000

1	30-60-2080	LOGO LINE 6, Spider	1.000000
1	30-63-0010	INSULATION, VOLARAPOLYOLEFIN F OAM, 26.5 x 1/4 x 1/16	7.000000
1	30-63-1111	FOAM, 1/8" THK, 1/2" SQ, ADH O NE SD, 3M NO. 4508	2.000000
1	40-00-0073	Sheet, Accessory, Domestic	1.000000
1	40-00-0080	Manual, User's, Spider	1.000000
2	40-10-0046T	FOAM,TOP, SPIDER 212	2.000000
2	40-10-0046B	FOAM,BOTTOM, SPIDER 212	2.000000
1	40-10-0082	Carton, Inner - Spider 212	1.000000
1	40-10-0083	Carton, Outer - Spider 212	1.000000
1	40-20-0010	Plastic Bag,43"x38"x.004,clear	1.000000
1	40-25-0015	Label, Grounding, Pod Pro	1.000000
1	40-25-0020	Label, Quality Inspection	1.000000
1	40-25-0100	Label, Bar Code Serial Number 4 panel label - LTX 16 1125503	1.000000
1	45-00-2212	EPROM, programmed, Spider 212 version 1.0 U13	1.000000
1	50-00-0081	Front PCB ASSY - Spider	1.000000
2	01-12-0101	RES 100R 1/4W 5% DIP TH	5.000000
		Ref: R11, R17-R20	
2	01-12-0102	RES 1K 1/4W 5% DIP TH	2.000000
		Ref: R14, R16	
2	01-12-0201	RES 200R 1/4W 5% DIP TH	1.000000

		Ref: R12	
2	01-12-0202	RES 2.0K 1/4W 5% DIP TH	1.000000
		Ref: R15	
2	01-12-0511	RES 510R 1/4W 5% DIP TH	1.000000
		Ref: R13	
2	01-48-6103	POT 10KB SINGLE 25MM W/9mmNUT D-SHAFT	10.000000
2	18-02-0002	LED RED Hi Intensity L34LSRD	16.000000
		Ref: D1-D16	
2	21-23-1024	CAB DIL 24-PIN 2mm 60mm ML-FEM	1.000000
2	24-31-1105	TACK SWITCH	5.000000
		Ref: SW1-SW5	
2	30-15-0401	SPC LED .155 O.D. x .600 LG BL K PVC BIVARE ELM5-600 (SPDR)	16.000000
1	50-00-0082	AC PCB ASSY - Spider	1.000000
2	03-24-0104	CAP 1uF 250V 20% TH METAL FILM-POLY	1.000000
		Ref: C1	
2	11-10-2020	Wide band choke 1-5 turns	2.000000
		Ref: L1,L2	
2	21-14-0002	JACK AC 3-PIN MALE PANEL-MNT SNAP-IN CRJ-45	1.000000
		9401	
2	21-18-0187	Connector,Qck.ConnectPost .187 Amp 63823-1	2.000000
		Ref: M3,4	
2	21-34-1806	Cable Assy, Earthing	1.000000

1	50-00-0084	Main PCB ASSY - Spider 212	1.000000
2	01-04-0101	RES 100R 1/8W 5% 1206 SM	1.000000
		Ref: R70	
2	01-04-0102	RES 1K 1/8W 5% 1206 SM	16.000000
		Ref: R8,R10,R22,R32,R36,R40,R55,R56,R64,R67,R69,R75,R77,R81,R89 R90	
2	01-04-0103	RES 10K 1/8W 5% 1206 SM	19.000000
		Ref: R1,R3-6,R12-13,R18,R21,R26,R31,R34,R37-38,R44-45,R47,R51,R62	
2	01-04-0104	RES 100K 1/8W 5% 1206 SM	1.000000
		Ref: R57	
2	01-04-0105	RES 1M 1/8W 5% 1206 SM	1.000000
		Ref: R71	
2	01-04-0150	RES 15R 1/8W 5% 1206 SM	2.000000
		Ref: R30,R46	
2	01-04-0153	RES 15K 1/8W 5% 1206 SM	3.000000
		Ref: R14,R35,R60	
2	01-04-0154	RES 150K 1/8W 5% 1206 SM	2.000000
		Ref: R15,R19	
2	01-04-0183	RES 18K 1/8W 5% 1206 SM	1.000000
		Ref: R63	
2	01-04-0202	RES 2K 1/8W 5% 1206 SM	3.000000
		Ref: R9,R24,R73	
2	01-04-0302	RES 3K 1/8W 5% 1206 SM	2.000000
		Ref: R78,R80	
2	01-04-0331	RES 330R 1/8W 5% 1206 SM	1.000000
		Ref: R61	
2	01-04-0332	RES 3.3K 1/8W 5% 1206 SM	1.000000
		Ref: R65	
2	01-04-0362	RES 3.6K 1/8W 5% 1206 SM	1.000000

		Ref: R76	
2	01-04-0470	RES 47R 1/8W 5% 1206 SM	8.000000
		Ref: R25,R27-29,R50,R52-54	
2	01-04-0471	RES 470R 1/8W 5% 1206 SM	3.000000
		Ref: R49,R72,R79	
2	01-04-0472	RES 4.7K 1/8W 5% 1206 SM	2.000000
		Ref: R17,R33	
2	01-04-0473	RES 47k 1/8w 5% 1206 SM	1.000000
		Ref: R66	
2	01-04-0512	RES 5.1K 1/8W 5% 1206 SM	8.000000
		Ref: R2,R7,R11,R23,R85-88	
2	01-04-0622	RES 6.2K 1/8W 5% 1206 SM	1.000000
		Ref: R74	
2	01-12-0027	RES 2.7R 1/4W 5% DIP TH	2.000000
		Ref: R39,R43	
2	01-20-5033	RES 0.33R 5W 5% DIP TH	2.000000
		Ref: R16,R20	
2	03-10-0331	CAP 330uF 10V 20% RAD ELEC TH	1.000000
		Ref: C72	
2	03-12-0107	CAP 100uF 16V 20% RAD ELEC TH	1.000000
		Ref: C73	
2	03-12-0688	CAP 6800uF 16V 20% RAD ELEC TH	1.000000
		Ref: C74	
2	03-14-0477	CAP 470uF 25V 20% RAD ELEC TH	4.000000
		Ref: C63-64,C76-77	
2	03-18-0105	CAP 1uF 50V 20% RAD ELEC TH	9.000000
		Ref: C27,C30,C47-48,C52,C57,C59,C88-89	
2	03-18-0106	CAP 10uF 50V 20% RAD ELEC TH	12.000000
		Ref: C5,C7,C10-11,C19,C31,C35,C42,C50,C61,C67,C78	

2	03-18-0478	CAP 4700uF 50V 20% RAD ELEC TH	2.000000
		Ref: C32-33	
2	03-36-0224	CAP 0.22uF 50V 20% ESTR TH	4.000000
		Ref: C34,C43,C39-40	
2	03-45-0473	CAP 47nF 16V 20% 1206 FILM SM	1.000000
		Ref: C82	
2	03-46-0104	CAP 0.1uF 50V 20% 1206 SM	36.000000
	X7R		
		Ref: C3-4,C6,C8,C12,C15,C23-24,C36-37,C41,C45,C49,C53-55,C58,C62, C65,C69,C71,C75,C79,C84-85,C87,C96-97,C104-106,C109,C111-114	
2	03-52-0101	CAP 100 pF 50V 20% 0805 SM	1.000000
	X7R 08055A101KATMA		
		Ref: C101	
2	03-52-0102	CAP 1nF 50V 20% 0805 SM	17.000000
	X7R		
		Ref: C17,C20-22,C26,C29,C38,C46,C70,C92-95,C98-100,C110	
2	03-52-0103	CAP 10nF 50V 20% 0805 SM	1.000000
	X7R		
		Ref: C60	
2	03-52-0220	CAP 22pF 50V 20% 0805 SM	4.000000
	X7R		
		Ref: C44,C56,C68,C80	
2	03-52-0221	CAP 220pF 50V 20% 0805 SM	15.000000
	X7R		
		Ref: C1-2,C9,C13,C16,C25,C81,C86,C90-91,C102-103,C107-108,C115	
2	03-52-0331	CAP 330pF 50v 20% 0805 SM	1.000000
	X7R		
		Ref: C18	
2	03-52-0472	CAP 4700pF 50V 20% 0805 SM	2.000000
	X7R		
		Ref: C14,C28	
2	03-52-0562	CAP 5.6nf 50V 20% 0805 SM	2.000000
	X7R	AVX 08051C562KATMA	
		Ref: C66,C83	
2	06-04-4002	DIODE POWER 1N4002 TH	5.000000
		Ref: D7,D13-16	
2	06-16-6200	DIODE BRIDGE-RECTIFIER TH VISH	1.000000
	AY-PB64		
		Ref: D1	
2	06-20-4148	DIODE SMALL-SIGNAL 4148 DL-35	8.000000

		Ref: D3-6,D8-11		
2	06-28-0310	DIODE ZENER 3.3V DL-35 SM PHIL LIPS-L5226B		2.000000
		Ref: D17-18		
2	06-28-0820	DIODE ZENER 8.2V DL-35 SM		1.000000
		Ref: D12		
2	09-10-4401	TRANS NPN SMALL-SIGNAL 2N4401 SM		1.000000
		Ref: Q1		
2	09-10-4403	TRANS PNP SMALL-SIGNAL 2N4403 SM		2.000000
		Ref: Q2-3		
2	11-00-1198	Crystal Osc 11.98080MHz HC-49/u holder		1.000000
		Ref: X1		
2	11-10-0601	BEAD FERRITE 600R @100mHZ SM 1206		11.000000
		Ref: L3-13		
2	12-02-7805	IC REG +5v 1.5 Amp TH		1.000000
		Ref: U19		
2	12-02-7815	IC REG +15V 1AMP TH		1.000000
		Ref: U20		
2	12-02-7915	IC REG -15V 1AMP TH		1.000000
		Ref: U24		
2	12-30-3886	IC POWER-AMP 50W LM3886TF TH		2.000000
		Ref: U1-2		
2	12-54-0072	IC OP-AMP DUAL TL072D SM		3.000000
		Ref: U6-7,U17		
2	12-54-0084	IC OP AMP Quad TL084CD SM mfg p/n# TL084CD		2.000000
		Ref: U3,U11		
2	12-64-0542	IC CONVERTER A/D 8-BIT TLC542 SM		1.000000
		Ref: U21		
2	12-64-4221	IC CONVERTER A/D 20-BIT CS4221 SM		1.000000

		Ref: U18	
2	15-62-0014	IC 74HC14 INVERTER-HEX SIN 1-IN SM	2.000000
		Ref: U4,U23	
2	15-62-0573	IC 74HC573 BUFFER INVERTING 8-BIT SM	1.000000
		Ref: U9	
2	15-62-0594	IC, Octal Shift Register SN74HC594DW	1.000000
		Ref: U22	
2	15-62-4051	IC, 8 to 1 Analog 74HC4051D	1.000000
		Ref: U16	
2	15-70-6256	DRAM FLEXTONE ISSI P/N IS4IC16257-35K	1.000000
		Ref: U15	
2	15-78-1024	IC EEPROM 1K (45AF751E)	1.000000
		Ref: U5	
2	15-84-8032	IC, Microprocessor 8032SMT P80C32SBBB Surface Mount	1.000000
		Ref: U10	
2	15-86-7070	IC DSP TMS57070FFT SM	1.000000
		Ref: U8	
2	15-92-1812	RESET CHIP DS1812R-5/T&R	1.000000
		Ref: U12	
2	21-00-4420	JACK 1/4" EARTHING-WASHER JB0661-K01-3	2.000000
		Ref: M10-11	
2	21-00-6616	JACK 1/4" STEREO FEMALE PCB-MN 6-PIN FLUSH	2.000000
		Ref: J2-3	
2	21-16-0045	JACK RJ-45 8-PIN FEMALE PCB-MNT RT-ANG	1.000000
		Ref: J1	
2	21-18-0250	Connector,Qck.ConnectPost .250 Amp 63824-1	9.000000
		Ref: M1-9	
2	21-23-1301	HEADER, 24 PIN 0.1" RIBBON	1.000000

		Amp#104338-5	
		Ref: H1	
2	21-42-0028	SOCKET 28 pin TH	1.000000
		Ref: for U13	
2	24-19-4025	FUSE 4A 125v Littlefuse# H239 004 or equiv.	1.000000
1	50-00-2212	Cabinet, Spider 0212	1.000000
2	30-00-0621	SCR WD 6-18 x 1 1/4 LG PHILLIP S RND HD STL BLK OXIDE	2.000000
2	30-00-0812	SCR NO.8 x 3/4 LG PHH TRUSS BL K OXIDE W/WAX (CORNER)	14.000000
2	30-00-1024	SCR, 10-24 x 1.0 LG, OVAL CTSK , PHH, STL, BLK OXIDE, WAXED	2.000000
2	30-28-0002	CORNER, LEFT, PLASTIC (SPIDER)	1.000000
2	30-28-0003	Plastic right corner-Spider	1.000000
2	30-28-0004	CORNER, REGULAR, PLASTIC (SPI DER)	6.000000
2	30-36-0001	FABRIC VINYL BLACK-BRONCO ASC03 54"-Wide	.750000
2	30-39-0001	FAB Grille Black #BY4584-22 50 Yard Rolls	.166000
2	30-57-0580	HANDLE/STRAP Heavy Duty, Black	1.000000
2	30-57-0581	END CAPS, BLACK, TEXTURED FINI SH	2.000000

Service Dept.
6033 De Soto Ave.
Woodland Hills, CA 91367
P. 818-575-3600
F. 818-676-1585
E. service@line6.com

Procedure for reinitialization of Spider amps (Hard reset)

Power unit up while holding down the “A” button. Hold for 3 seconds and then release. Factory presets will be re-installed.

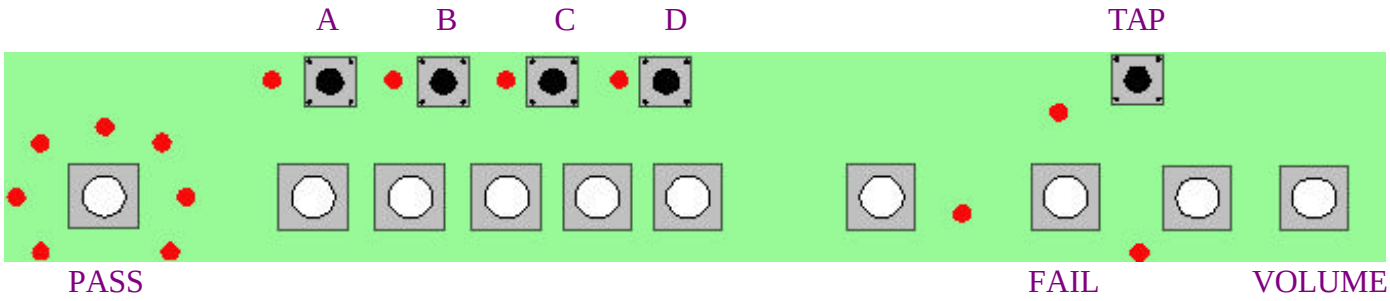
Procedure for identifying firmware version of Spider amps

Power unit up while holding down the “B” button. The display will show the following info for approximately 2 seconds:

Version 1.1 = “Clean” and “D” LEDs will light up.
Version 1.2 = “Clean” and “C” LEDs will light up.
Version 1.3 = “Clean”, “C” and “D” LEDs will light up.

The MAJOR VERSION will be displayed on the Amp Select LEDs.
Version 1 = CLEAN LED: Version 2 = BLUES LED…Version 6 = SCREAM LED
The MINOR VERSION (0-15) will be displayed on the Channel LEDs in binary form. The LS bit is right justified.
If this is a BETA VERSION, the Tape Echo LED will light up.

SPIDER 212 TEST INSTRUCTIONS
Rev.0



TEST SETUP/INSTRUCTIONS:

1. Place SPIDER 212 test boards on mounting pegs. Make sure the **POWER** (red button on the back panel) is OFF, and connect all the cables to the test fixture and SPIDER 212 test boards (Note numbers).

2. Hold down the **TAP** button while turning on **POWER** (red button on the back panel), the **D** Channel LED will be lit.

3. Flip the **AUDIO SELECTOR** switch to **SPEAKER.**

4. Unplug the **HEADPHONE** cable (4) from the front PCB (the **SPEAKER** output is muted when the **HEADPHONE** input (4) is plugged in).

5. Adjust the **VOLUME** pot on the SPIDER 212 test board until the yellow **VOLUME** LED on the test fixture lights.

6. Put on the headphones and listen (adjust the headphone volume on the test fixture if necessary): the tone (audible signal) should be clean and heard equally on both sides.

7. Plug in the **HEADPHONE** cable (4) into the SPIDER 212 test board **HEADPHONE** input (4). The sound in the headphones should be muted and the yellow **VOLUME** LED on the test fixture should go out.

8. Flip the **AUDIO SELECTOR** switch to **HEADPHONE** and listen: the tone (audible signal) should be clean and heard equally on both sides.

9. ADC/DRAM TEST - Press the button labeled **AUDIO ATTENUATE** (on test fixture) and you should hear the signal get softer (smaller) on one side and then the other. If the signal doesn't get softer (or goes off) the ADC Test fails. If the signal gets softer on both sides of the headphones at the same exact time, the DRAM Test fails.

10. Press each **CHANNEL BUTTON: A, B, C, D** to test the switches, the **B**, **C** & **D** LEDs should change.

11. Start Test 0001 (only LED **D** lighted). See SPIDER 212 TEST DESCRIPTIONS (TABLE 1) for Test summary.

12. Press **TAP** to start Test 0001. This is a **PASS/FAIL** test: the 6 LEDs on left will light for a **PASS**
    the 3 LEDs on the right will light up for a **FAIL**

13. Press any **CHANNEL BUTTON** and then the **TAP** button to start Test 0010. This is a **PASS/FAIL** test.

14. Press any **CHANNEL BUTTON** and then the **TAP** button to start Test 0011. All LEDs should light evenly.

15. Press any **CHANNEL BUTTON** and then the **TAP** button to start Test 0100.
    On the SPIDER 212 test board:
    - LEDs **A**, **B**, & **C** should be lighted
    - Rotate the pots: the **PASS** LEDs should light up as the pot is rotated
    - Unplug and Plug in **HEADPHONE**: LED **A** should turn OFF then ON
    - Unplug and Plug in **TEST SIGNAL**: LED **C** should turn OFF then ON

16. Press any **CHANNEL BUTTON** and then the **TAP** button to start Test 0101. This is a **PASS/FAIL** test. On the test fixture the 4 red LEDs (**VCC1**, **VCC2**, **GND1** & **GND2**) should be lighted and the green **SERIAL** LED should blink 3 times.

TABLE 1

SPIDER 212 TEST DESCRIPTIONS:

A	B	C	D	Test	Result
0	**0**	**0**	**1**	**EPROM**	**PASS** or **FAIL**
0	**0**	**1**	**0**	**EEPROM**	**PASS** or **FAIL**
0	**0**	**1**	**1**	**LED**	All **LEDs** light evenly
0	**1**	**0**	**0**	**POTS/JACKS**	ROTATE pots = **LEDs** rotate, UNPLUG and PLUG in Headphone jack = **LED A** will turn ON and OFF. UNPLUG and PLUG in Test Input jack = **LED C** will turn ON and OFF.
0	**1**	**0**	**1**	**RJ-45**	**PASS** or **FAIL,** Test fixture: **4 red LEDs light** and **green flashes 3 times**

Spider Software Test Instructions
Kevin Duca
5/10/99

To enter Test Mode:

Hold Tap Tempo while turning the power on. When Test Mode is successfully entered only the Channel D LED will light. This indicates that test #1 is ready to execute. To scroll through the available tests any Channel button A-D can be pressed. This will increment the test number by one. The test number is displayed in binary form on the Channel LEDs. When the last test is reached and any of the Channel buttons is pressed the test number wraps around to the beginning again. To execute a test press the Tap Tempo button. Most tests will display a pass or fail indication. The pass indication is all six of the LEDs surrounding the Amp Select knob light up. The fail indication is all three of the LEDs surrounding the Delay Select knob light up. See below for descriptions of the individual tests.

Individual Test Description:

The tests according to binary number displayed:

1. EPROM Test – Channel D LED is lit
   The test will indicate pass or fail as described above when it finishes. The EPROM test consists of summing up the individual bytes values starting at address zero of the EPROM and comparing it to the 16 bit stored value in the last two bytes of the EPROM. If the test fails it can be a result of:
   a. A misprogrammed EPROM.
   b. A faulty EPROM.
   c. Microprocessor address line shorts or bad connections.
   d. Microprocessor data line shorts or bad connections.

2. EEPROM Test – Channel C LED is lit
   The test will indicate pass or fail as described above when it finishes. The EEPROM test consists of writing an alternating checkerboard bit pattern to each 16-bit word in the EEPROM to check for bit failure. The test is non-destructive. If the test fails it can be a result of:
   a. Microprocessor control line shorts or bad connections.
   b. A faulty EEPROM.

3. LED Test – Channel D & C LEDs are lit
   This test does not indicate pass or fail. The LEDs must be visually inspected to determine pass or fail status. All LEDs light for approximately 2 seconds, are then turned off and each LED individually lit for approximately 500 milliseconds (1/2 second). The test fails when a LED does not light when supposed to or a LED lights when it is not supposed to. The test also fails when a LED flickers. If the test fails it can be a result of:
   a. A faulty LED (does not turn on when supposed to).
   b. A bad connection (flickers or does not turn on when supposed to).
   c. A short (LED is on when not supposed to be).

4. Analog to Digital Converter Potentiometer & Switch Test – Channel B LED is lit
   This test does not indicate pass or fail. The Pots and Switches must be visually inspected to determine pass or fail status. To test a knob turn it through its full range of values and make sure the LEDs surrounding the Amp Select knob follow correspondingly. Make sure each of the six LEDs lights over the full range. Repeat for each knob. The test fails if any of the six LEDs do not light when the knob is checked through its full range. In addition, the test fails if the LED sequence is not sequential or it flickers. To test switches plug/unplug the headphone and the Channel A LED will turn on/off. The Channel B LED on/off status reflects the stereo/mono resistor setting. The Channel C LED on/off status reflects the guitar input jack plug/unplug status. If the test fails it can be a result of:
   a. A faulty LED (hopefully you did the LED test before getting to this one).
   b. A bad connection (LED flickers or doesn't move when knob range or switch checked).
   c. A bad potentiometer (LED flickers or doesn't move when knob range checked).
   d. A bad A/D converter (LED doesn't move when knob range checked).

5. Remote Test – Channel B & D LEDs are lit
   The test will indicate pass or fail as described above when it finishes for only part of the test. The automatic part of the test checks the A/D pedal values and determines whether it passes or fails. To check the serial communication the remote LED on the test fixture will blink 3 times. This part of the test does not indicate pass or fail and must be visually inspected to determine pass or fail status. If the test fails it can be a result of:
   a. A bad connection.
   b. A bad A/D converter.
   c. A bad Microprocessor serial port (LED doesn't blink).
   d. A bad Microprocessor connection (LED doesn't blink).

6. Audio Test – can be done any time during Test Mode. The main volume knob is active and works like normal except during the Potentiometer test.

Spider Software Version number:

Press and hold Channel B button while turning on. The display will show the following info for approximately 2 seconds:

The MAJOR VERSION will be displayed on the Amp Select LEDs.
Version 1 = CLEAN LED; Version 2 = BLUES LED … Version 6 = SCREAM LED
The MINOR VERSION (0 – 15) will be displayed on the Channel LEDs in binary form. The LS bit is right justified.

Spider Default initialization:

Press and hold the Channel A button while turning on.