



POD 2.0
Rev. 2006

AKA "Moto POD"

STOP!!!

Please Read:

1. What's Different?
2. Operational Differences
3. Serial Number Identification
4. RoHS Compliancy

Service Manual



POD 2.0 Rev. 2006
AKA "MOTO POD" v. 1.0

What's Different?:

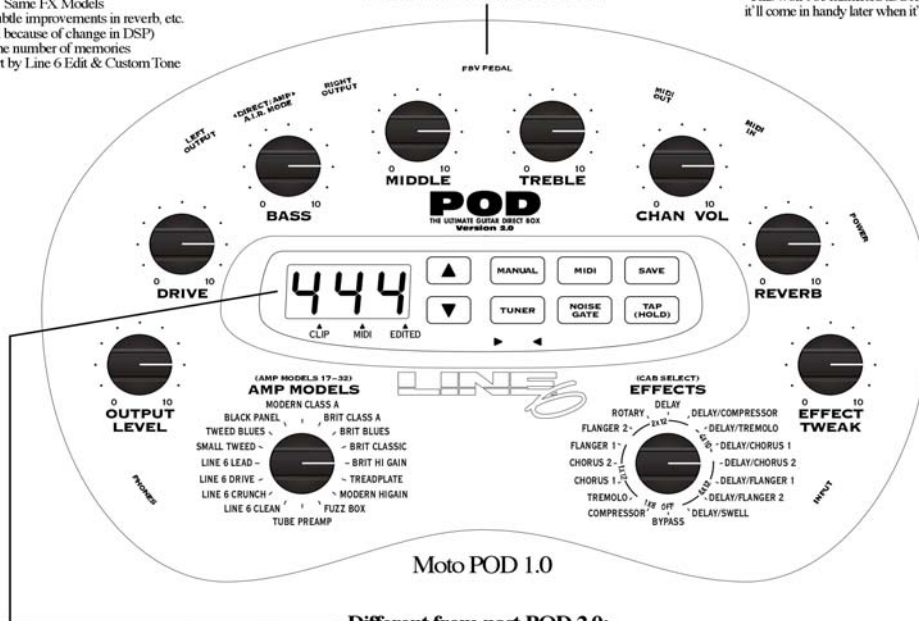
1. General Differences; Visual

Same features as POD 2.0, except for FBV compatible, display change and flash updatability.

It's still a POD 2.0!
Same Amp Models
Same Cab Models
Same FX Models
(apart from subtle improvements in reverb, etc.
required because of change in DSP)
Same number of memories
Same support by Line 6 Edit & Custom Tone

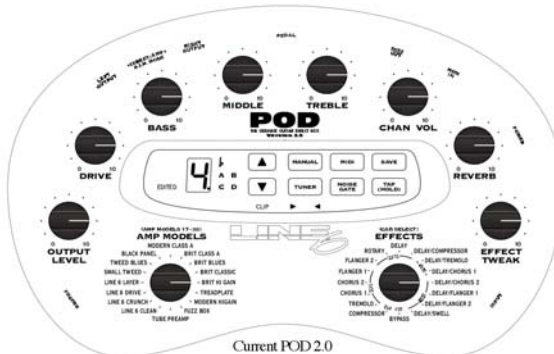
Different from past POD 2.0:
FBV Compatible
Works with any FBV family foot controller, including the new FBV-Me.
Does not work with Floor Board and FB4.

Different from past POD 2.0:
Flash Updateable
This won't be marketed as a feature at FCS, but
it'll come in handy later when it's time for updates.



Different from past POD 2.0:
3-Digit Display
Displays Bank letter and Channel number, as well as note for tuner, number of the MIDI Channel, etc.
The POD 2.0's individual A, B, C, D, flat sign and EDITED LED's are eliminated.

For Reference: current POD 2.0:



2. Operational Differences:

General Operational Differences versus POD 2.0

Amp and Effect Setups via MIDI

Edit Indication

MIDI indication

Clip Indication

Tuner Display

Character Set

Mono/Stereo Output

MIDI ID

Replaced Line 6 Layer amp model with Line 6 Lead

FBV Footcontroller compatibility

New chassis top and buttons

128 Channel Memories

Smart FX operation for Effect Tweak knob

Full-time compressor

Full-time Delay with dedicated Delay Tap

Effect on/off button with dedicated Effect Tap

Easy Detail Tweaking

Compare Function

Compatibility with LINE 6 MONKEY

Compatibility with LINE 6 EDIT AND CUSTOMTONE online tone library

New Test Modes

3. Serial Number Identification:

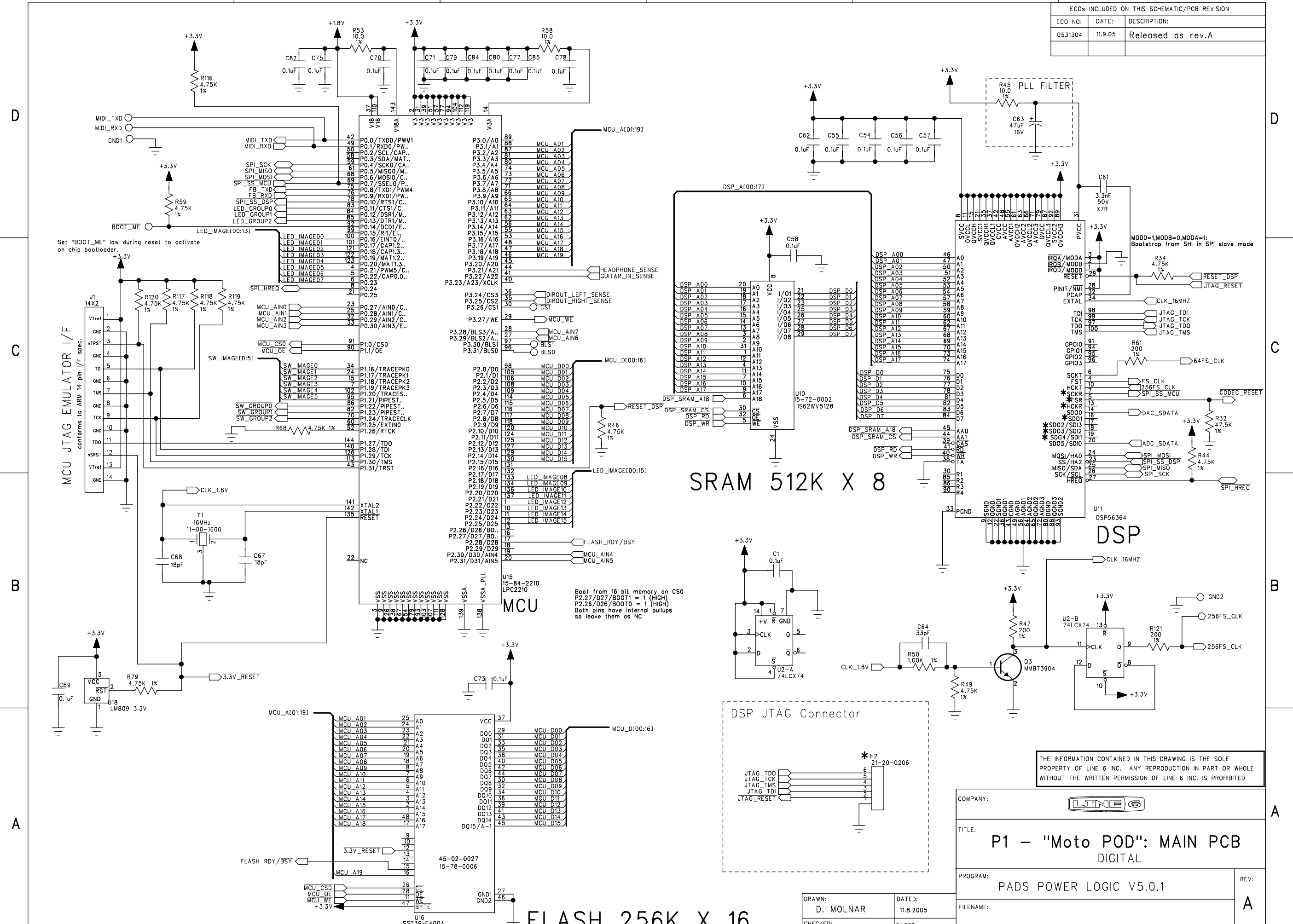
New POD 2.0 serial number prefix starts with **MPD1**

Older POD 2.0 serial number prefix starts with **POD2**, **POD1H**, or **PD21**

4. RoHS Compliancy:

This product is compliant to RoHS Standards.

ECOs INCLUDED ON THIS SCHEMATIC/PCB REVISION		
ECO NO:	DATE:	DESCRIPTION:
0531304	11.9.05	Released as rev.A



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COMPANY:		LINE 6	
TITLE: P1 - "Moto POD": MAIN PCB			
DIGITAL			
PROGRAM: PADS POWER LOGIC V5.0.1			REV: A
FILENAME:			
SCALE: 1:1	SIZE: C	PART NUMBER: 35-00-0067	SHEET: 1 OF 6

DRAWN: D. MOLNAR	DATED: 11.8.2005
CHECKED: review panel	DATED:

FLASH 256K X 16

This board: All resistors are 1% Tolerance

6

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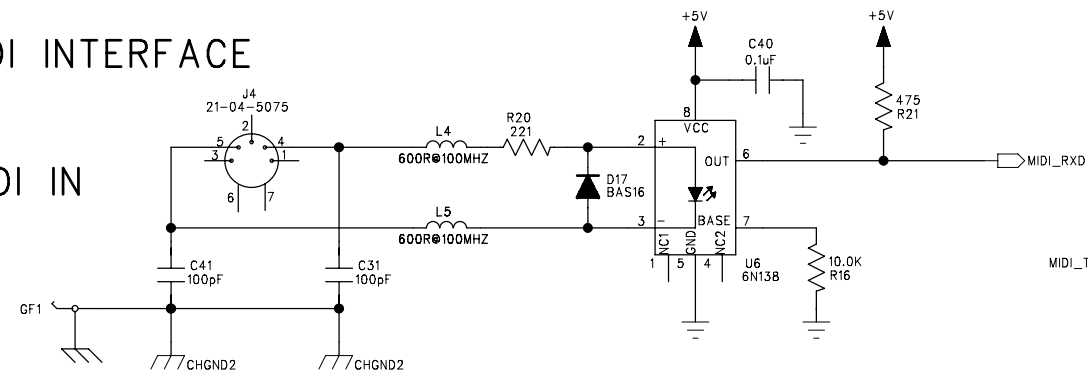
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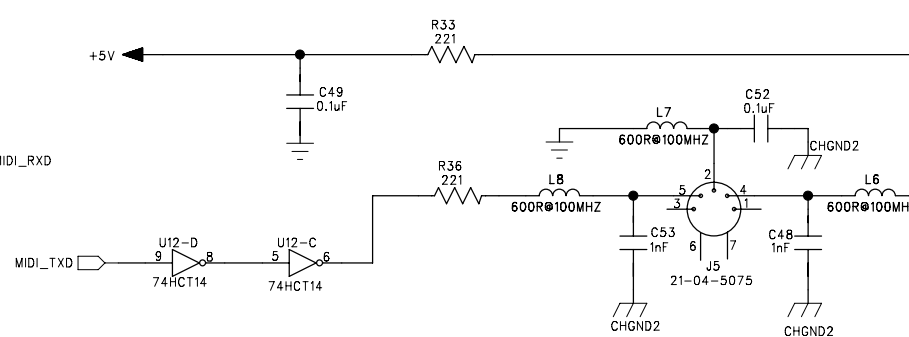
ECOs INCLUDED ON THIS SCHEMATIC/PCB REVISION		
ECO NO:	DATE:	DESCRIPTION:

MIDI INTERFACE

MIDI IN

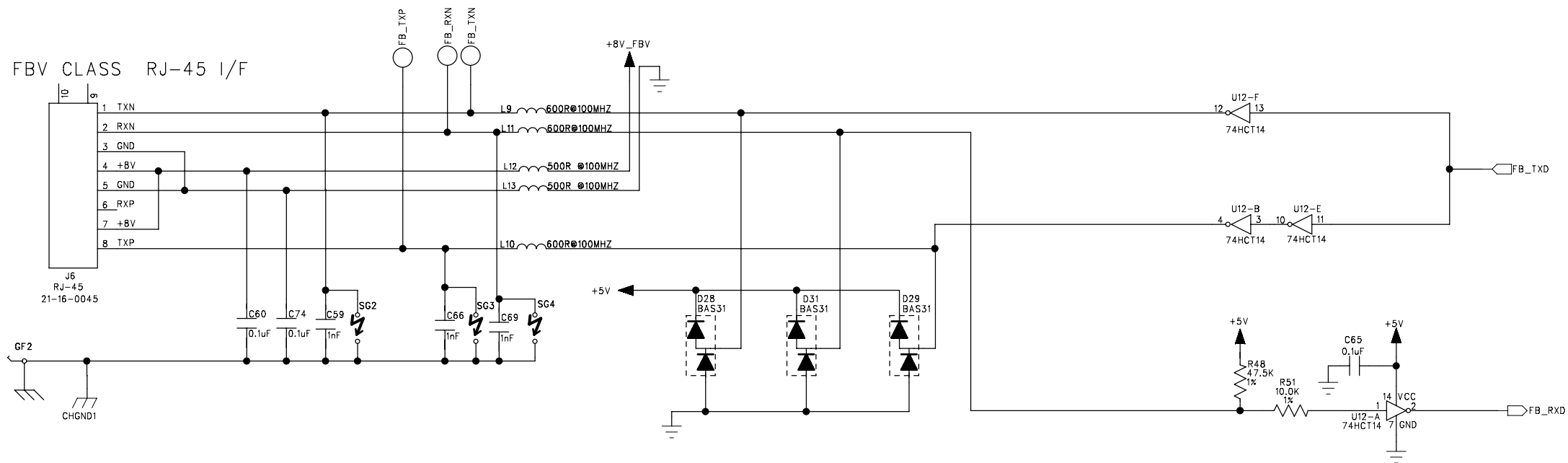


MIDI OUT

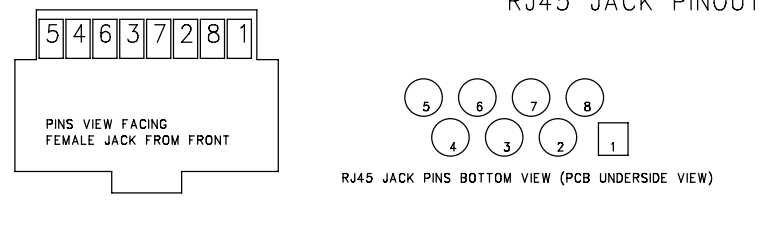


FBV CLASS INTERFACE

FBV CLASS RJ-45 I/F



RJ45 JACK PINOUT



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COMPANY: LINE 6

TITLE: P1 - "Moto POD": MAIN PCB INTERFACE

PROGRAM: PADS POWER LOGIC V4.0

REV: A

DRAWN: D. MOLNAR

DATED: 11.8.2005

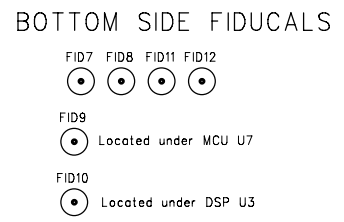
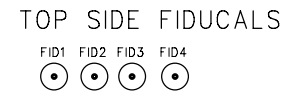
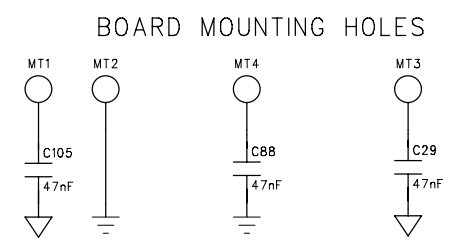
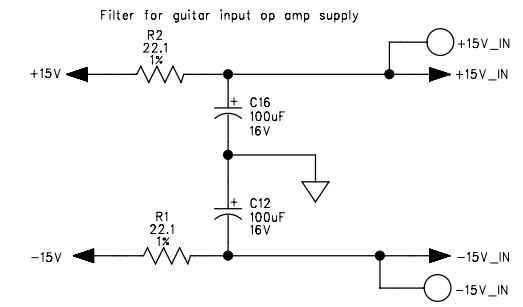
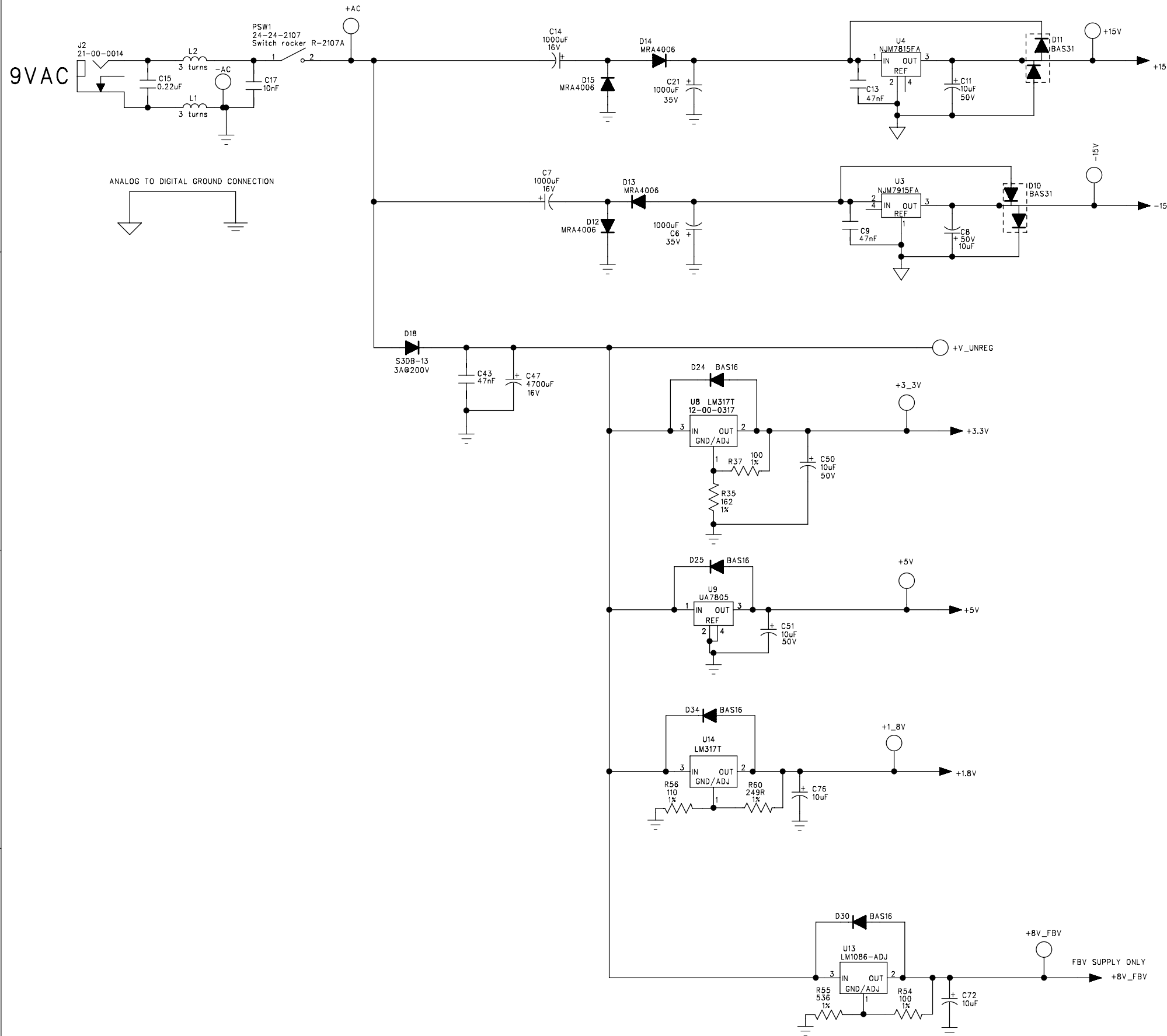
CHECKED: review panel

DATED:

SCALE: 1:1 SIZE: C PART NUMBER: 35-00-0067 SHEET: 2 OF 6

POWER SECTION

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



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COMPANY:	
TITLE: P1 - "Moto POD": MAIN PCB POWER	
PROGRAM: PADS POWER LOGIC V4.0	REV: A
FILENAME:	
SCALE: 1:1	SIZE: C
PART NUMBER: 35-00-0067	SHEET: 3 OF 6

DRAWN: D. MOLNAR	DATED: 11.8.2005
CHECKED: review panel	DATED:

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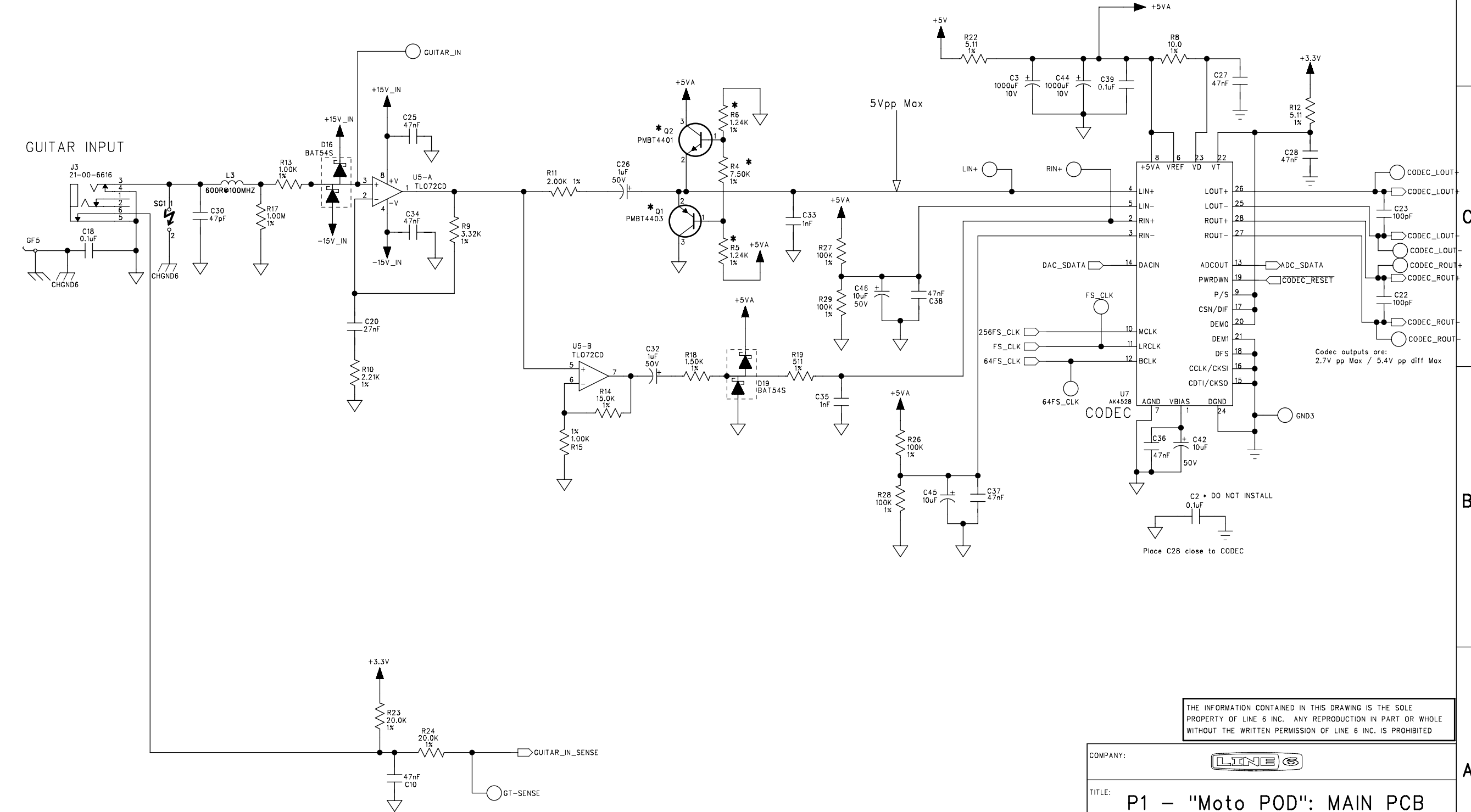
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1

ANALOG INPUT SECTION

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

* = NOT INSTALLED

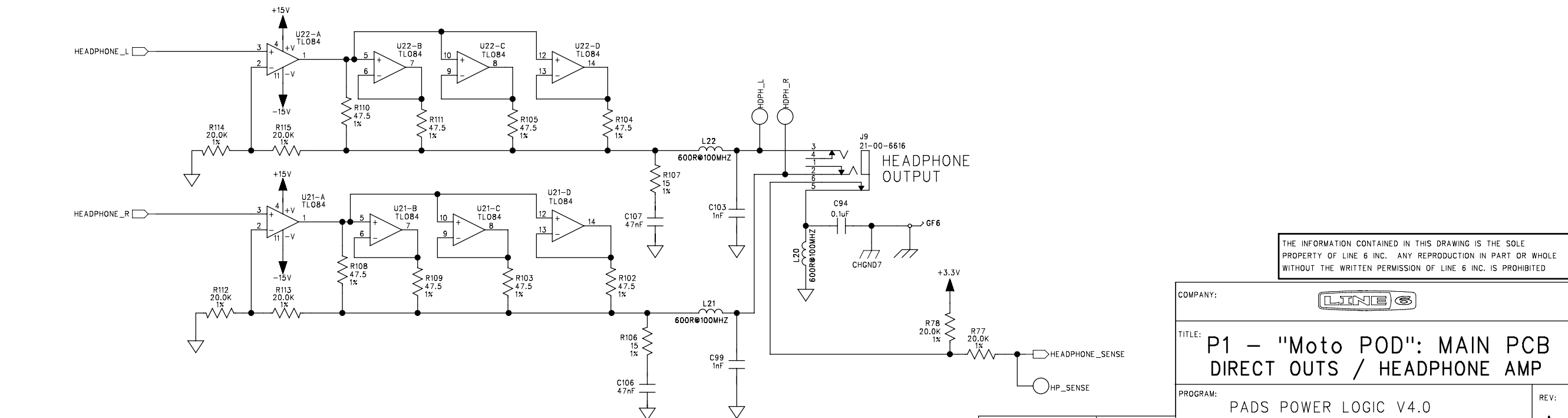
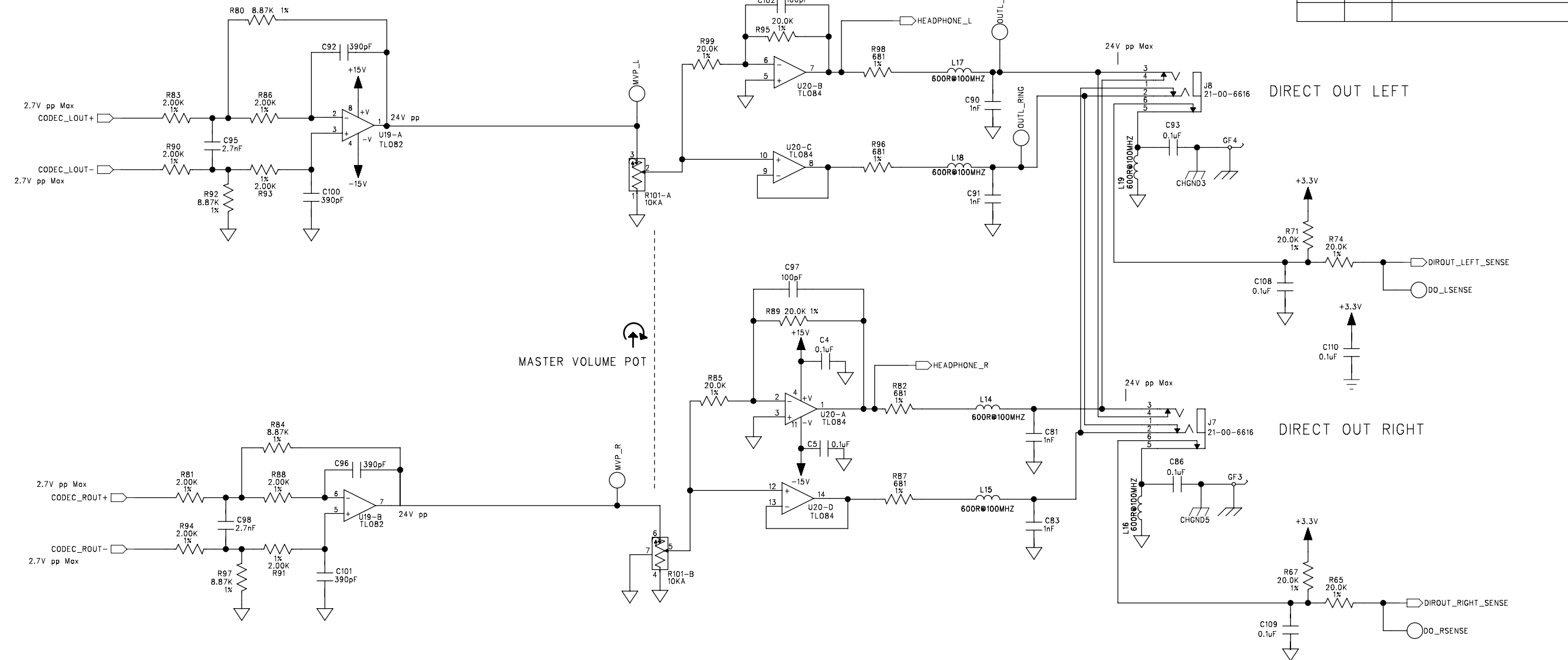


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COMPANY:	
TITLE: P1 - "Moto POD": MAIN PCB ANALOG IN	
PROGRAM: PADS POWER LOGIC V4.0	REV: A
FILENAME:	
DRAWN: D. MOLNAR	DATED: 11.8.2005
CHECKED: review panel	DATED:
SCALE: 1:1	SIZE: C
PART NUMBER: 35-00-0067	SHEET: 4 OF 6

AUDIO OUTPUT CIRCUITRY

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



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COMPANY:	
TITLE: P1 - "Moto POD": MAIN PCB DIRECT OUTS / HEADPHONE AMP	
PROGRAM: PADS POWER LOGIC V4.0	REV: A
FILENAME: .	
DRAWN: D. MOLNAR	DATED: 11.8.2005
CHECKED: review panel	DATED:
SCALE: 1:1	SIZE: C
PART NUMBER: 35-00-0067	SHEET: 5 OF 6

HEADPHONE AMPLIFIER

6

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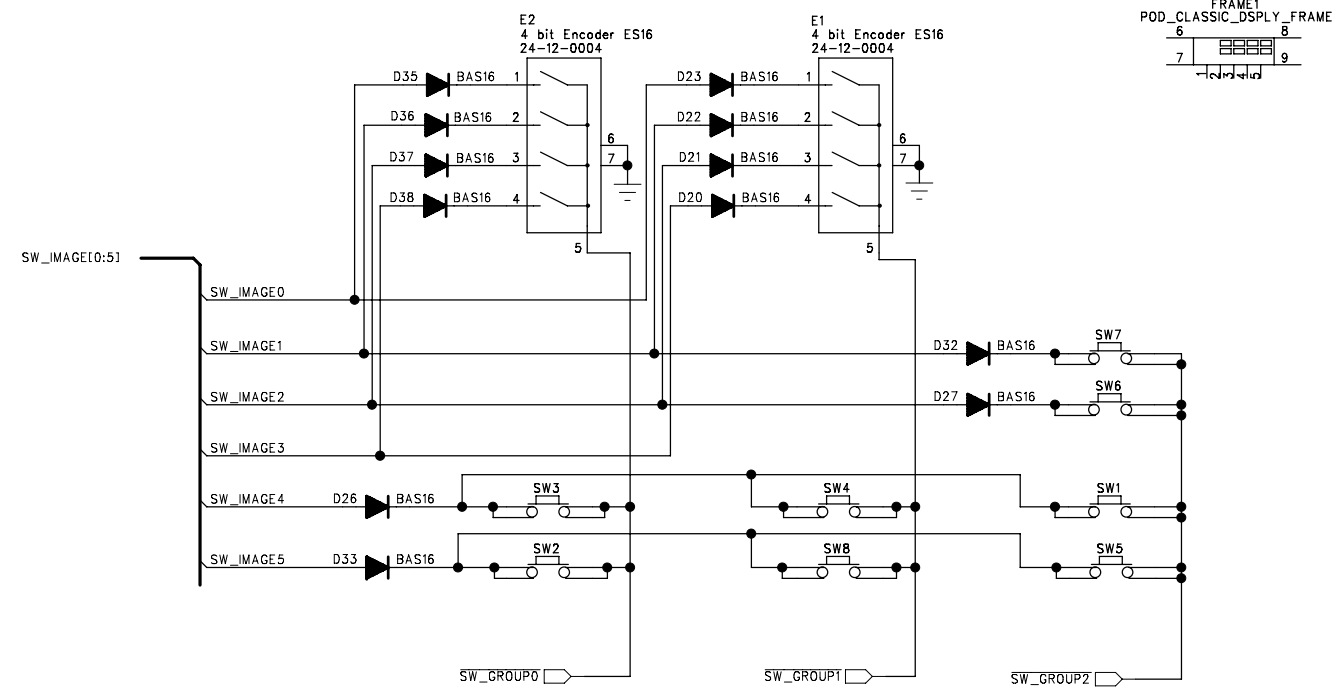
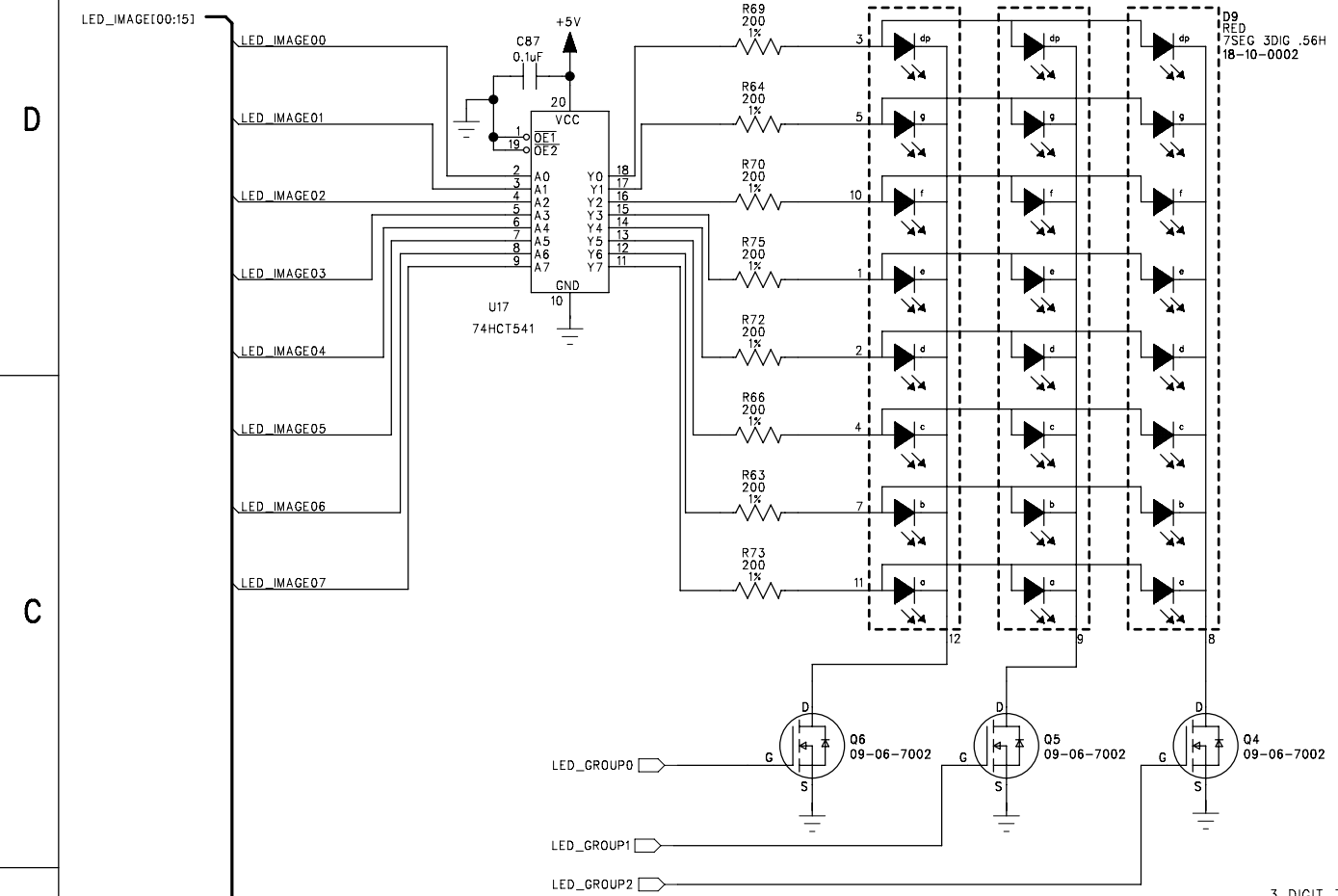
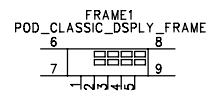
2

1

LEDS & DISPLAY

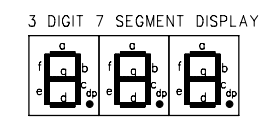
SWITCHES AND ENCODERS

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



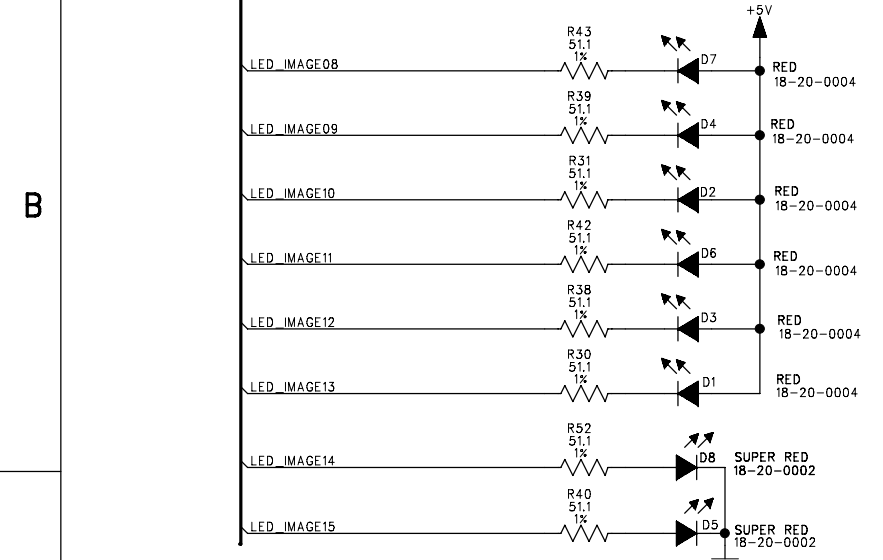
SWITCH MATRIX: 5 X 3

	SW_GROUP0	SW_GROUP1	SW_GROUP2
SW_IMAGE0	ENCODER1-1	ENCODER2-1	
SW_IMAGE1	ENCODER1-2	ENCODER2-2	SWITCH7 "DOWN"
SW_IMAGE2	ENCODER1-3	ENCODER2-3	SWITCH6 "MANUAL"
SW_IMAGE3	ENCODER1-4	ENCODER2-4	
SW_IMAGE4	SWITCH3 "NOISE GATE"	SWITCH4 "MIDI"	SWITCH1 "TAP/HOLD"
SW_IMAGE5	SWITCH2 "SAVE"	SWITCH8 "UP"	SWITCH5 "TUNER"

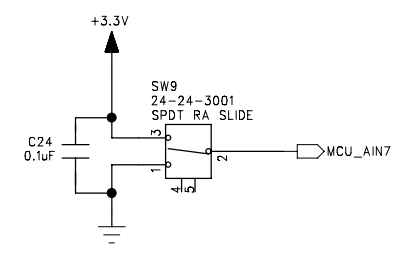
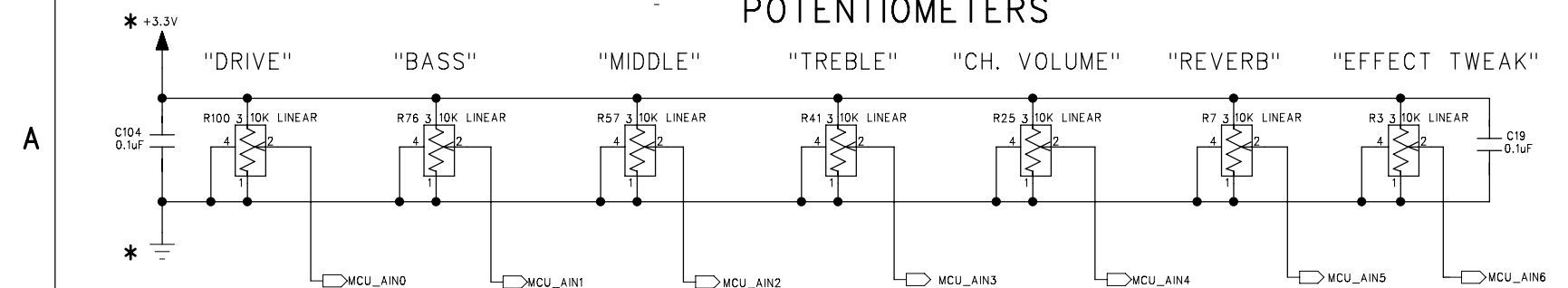


LED MATRIX: 8X3 + 8-discrete

	LED_GROUP0	LED_GROUP1	LED_GROUP2
LED_IMAGE00	7seg1 dp	7seg2 dp	7seg3 dp
LED_IMAGE01	7seg1 g	7seg2 g	7seg3 g
LED_IMAGE02	7seg1 f	7seg2 f	7seg3 f
LED_IMAGE03	7seg1 e	7seg2 e	7seg3 e
LED_IMAGE04	7seg1 d	7seg2 d	7seg3 d
LED_IMAGE05	7seg1 c	7seg2 c	7seg3 c
LED_IMAGE06	7seg1 b	7seg2 b	7seg3 b
LED_IMAGE07	7seg1 a	7seg2 a	7seg3 a
LED_IMAGE08	"MANUAL"		
LED_IMAGE09	"MIDI"		
LED_IMAGE10	"SAVE"		
LED_IMAGE11	"TUNER"		
LED_IMAGE12	"NOISE GATE"		
LED_IMAGE13	"TAP HOLD"		
LED_IMAGE14	"TUNER <"		
LED_IMAGE15	"TUNER >"		



POTENTIOMETERS



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COMPANY: **LINE 6**

TITLE: **P1 - "Moto POD": MAIN PCB**

PROGRAM: **PADS POWER LOGIC V4.0** REV: **A**

FILENAME: **.**

SCALE: 1:1 SIZE: C PART NUMBER: 35-00-0067 SHEET: 6 OF 6

DRAWN: D. MOLNAR	DATED: 11.8.2005
CHECKED: review panel	DATED:



Engineering

MOTO-POD (P1)

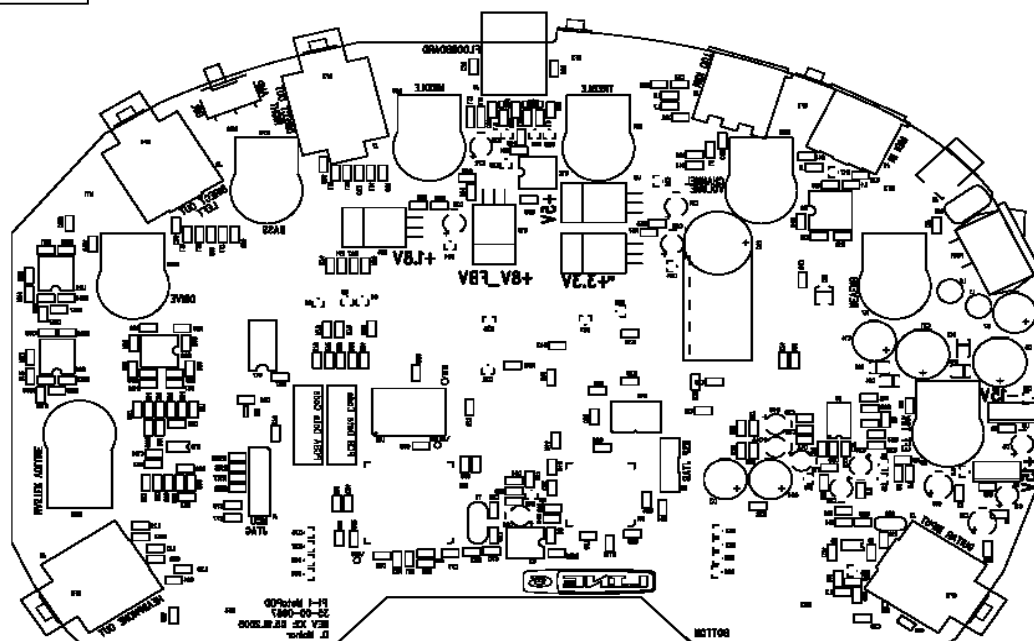
MAIN PCBA ASSEMBLY INSTRUCTIONS

Rev. A

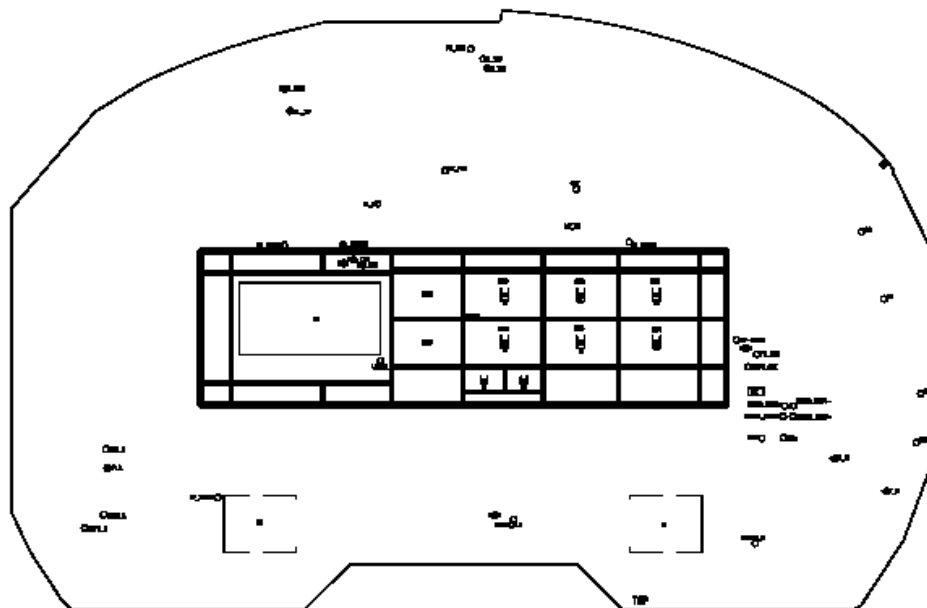
MOTO-POD (P1): 50-00-0067

(Refers to common MAIN PCB, Rev. A: 35-00-0067)

BOTTOM



TOP



LINE 6

Engineering

1. **“NOT INSTALLED” COMPONENTS:** Do not install the following components: **R4, R5, R6, C2, Q1, Q2, H2, & J1.**
2. **JACKS:** Make sure ALL jacks are mounted flush with the PCB and lined up with silkscreen outline within +/-1 degree of accuracy. **ALL jacks are mounted on the BOTTOM SIDE of the PCB.**
3. **HEADERS:** DO NOT INSTALL.
4. **SWITCHES:** Make sure all switches 24-24-2107 & 24-24-3001 (PSW1 and SW9) are mounted flush with the PCB and aligned within +/- 1 degree of accuracy on **BOTTOM SIDE** of the PCB.
5. **CRYSTAL:** Insert the insulator 30-15-0007 between the pcb and Crystal before soldering, this will prevent crystal from shorting out. Crystal Y1 is mounted flush with the PCB.
6. **REGULATOR ICs:** U8, U9 and U13 are mounted with a screw (30-00-0607) and standoff (30-12-2210) flushed against the **BOTTOM SIDE** of the PCB, tab side down. **The tab’s hole must line up with the corresponding hole in the PCB. Make sure to solder the leads after installing the screw and heat sink (standoff).** U14 is also mounted flushed against the **BOTTOM SIDE** of the PCB with no standoff.

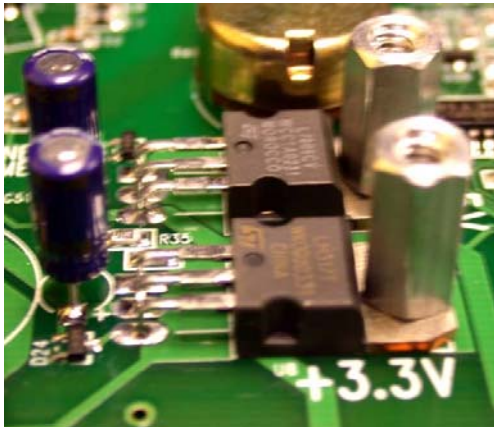


Figure #1: U8 and U9 with standoff

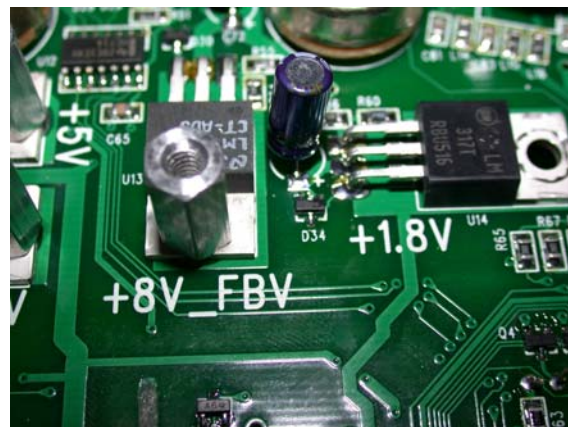
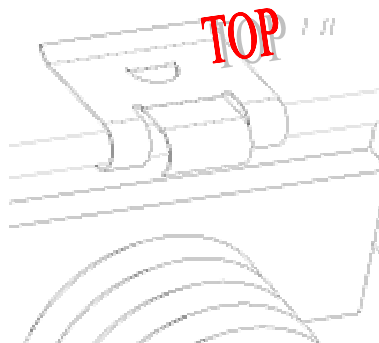


Figure #2: U13 with standoff & U14 with **NO** standoff.

LINE 6

Engineering

7. **GROUNDING FINGERS:** ALL grounding fingers are mounted flush against the PCB edge. They are mounted with their center clip hole on the **TOP SIDE** of the PCB (all jacks are on the **BOTTOM SIDE**) see drawing below. The “curl” of the grounding finger should curve toward the **BOTTOM SIDE** (toward the corresponding jack if there is one). **They should then be manually soldered on the TOP SIDE (SEE DRAWING BELOW).**



8. **RADIAL LEAD CAPACITORS:** All radial lead capacitors are to be mounted perpendicular to the PCB within +/- 1 degree of accuracy. They are to be mounted as low to the PCB without sacrificing the lead to package body integrity. Clip leads to .060” on the TOP side.
9. **FERRITE BEADS:** L1 and L2 are to be mounted perpendicular to the PCB within +/- 1 degree of accuracy. They are to be mounted as low to the PCB without sacrificing the lead to package body integrity. Clip leads to .060” on the TOP side of PCB. Make sure to apply a dab of RTV BETWEEN L1 and L2. See picture below:



Figure #3: Add RTV between L1 and L2

10. **LARGE CAPACITORS:** C47, electrolytic capacitor must be mounted on its side flush against the PCB, due to the size. Clip leads to .060" on the TOP side. Make sure to apply a dab of RTV at the bottom of the Capacitor, to secure the capacitor in place.

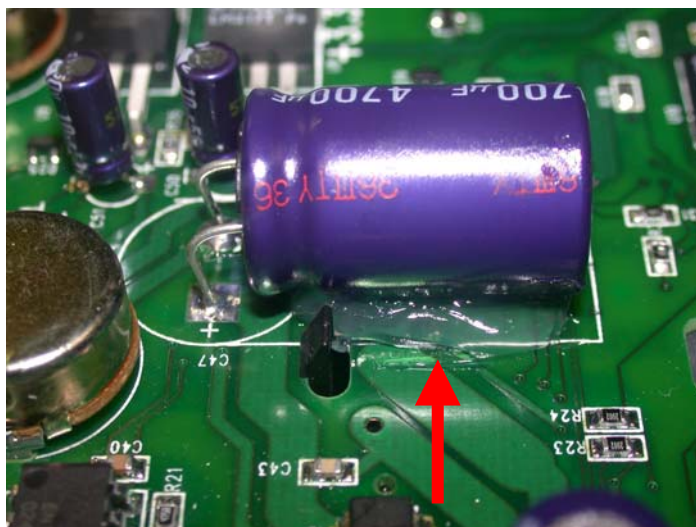
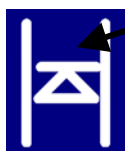


Figure #4: C47 Must be flushed against the PCB. Add a dab of RTV on both sides of Cap.

11. **POTENTIOMETERS:** All potentiometers are mounted on the **BOTTOM SIDE** of the PCB:
- Insert the shaft of the pot through the through-hole from the bottom side of the board. The pot shaft will sit perpendicular to the board when the pot is mounted flush to +/-1 degree. Ensure that the 3 soldering leads and side pin extend through the board. **DO NOT SOLDER AT THIS POINT.** Secure the pot to the board using the supplied hexagonal nut and washer. Tighten until snug.
 - After securing the potentiometer using the hex nut and washer, solder the 3 terminal leads.
12. **LARGE SMT LED's:** The SMT LED's (D1 – D4, D6 & D7) have a small green triangle printed on the bottom of them. The point of the triangle denotes the cathode. Align the point of the triangle with the side of the diode that has a line in it on the silkscreen. **THIS IS A FRAGILE PART! SENSITIVE TO HEAT AND HUMIDITY. PLEASE HANDLE ACCORDING TO LED MANUFACTURER'S GUIDELINES.**



CATHODE – Align the point of the triangle on LED with this side.

LINE 6

Engineering

13. **SMALL SMT LED's**: The SMT LED's (D5 & D8) have a small green dot printed on the Top side of the LED. The dot on the LED denotes the cathode. Align the dot of the LED with the triangle point with the line on the silkscreen. **THIS IS A FRAGILE PART! SENSITIVE TO HEAT AND HUMIDITY. PLEASE HANDLE ACCORDING TO LED MANUFACTURER'S GUIDELINES.**

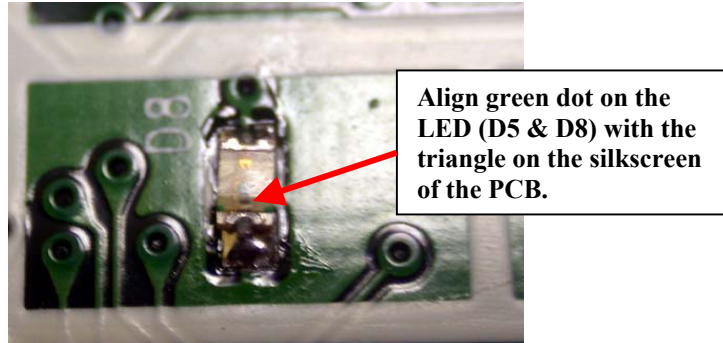


FIGURE #5: Before soldering LED's verify correct orientation.

14. **3 Digit Segment Display**: Place the segment display (D9) FLUSH against the PCB before soldering the pins on the opposite side of the PCB. **MAKE SURE THE THREE DECIMAL POINTS ON THE SEGMENT DISPLAY ARE FACING TOWARDS THE ENCODER AS INDICATED ON PHOTO BELOW.**

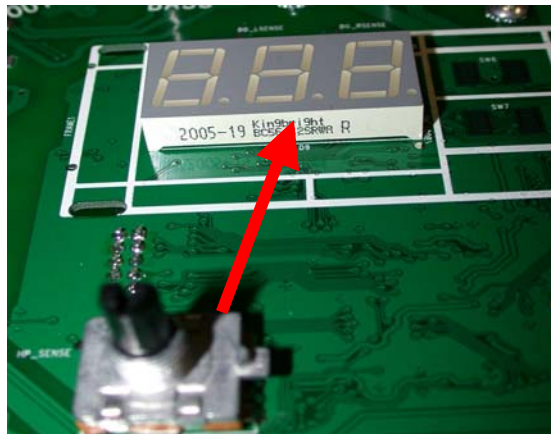


Figure #6: Verify 3 Digit Display is placed correctly before soldering. Three decimals should be facing towards the encoder.

15. **Encoders**: Make sure to remove the nut and washer from the encoders, otherwise when installing the PCB into the chassis it will not sit flush. Mount Encoders (E2 & E1) on **Top Side** flush to PCB and solder the leads on the Bottom side of the PCB.

- END OF MAIN PCBA INSTRUCTIONS -

99-062-0405 POD2.0 (Moto Pod) Packout			
Part Number	Description	Qty Per	Referenc Designator(s)
11-32-0000	XFMR PX2 120VAC/60Hz 9VAC/2A UL 2464 VW-1 6FT. BLK US	1	PACKOUT
40-00-0065	MANUAL USER MOTO-POD P1-1	1	PACKOUT
59-00-0008	ASSY UNIT COMPLETE MOTO-POD P1-1	1	

59-00-0008 POD2.0 (Moto Pod) Complete Assembly			
Part Number	Description	Qty Per	Referenc Designator(s)
24-30-0020	KEYPAD RUBBER 4x2 "TAP HOLD" POD/POD-PRO	1	
30-00-1632	SCREW 6-32 x 3/8IN PPB TAP-TITE STL	4	Top Cover to Base
30-27-0122	FRAME KEYPAD MOTO-POD 1.6 x 5.5-IN ABS BLK P1-1	1	
30-27-0123	BEZEL 1.5 x 5.4 x .06 RED POLYCARBONATE P1-1	1	
30-42-0160	LABEL PATENT U.S. POD/BOD-XT	1	
30-45-2000	KNOB POT PLASTIC BLACK w/WHITEINDICATOR LINE	10	
30-48-0010	FOOT RUBBER w/ADHSV 3M-BUMPON SJ-5012 (or equiv)	4	
30-51-0061	POD BASE, AL, CAST, RED PAINT	1	
30-51-0220	COVER MOTO-POD AL CAST RED PAINT P1-1	1	
30-60-0006	LOGO LINE 6 SML 38.35 x 7.98mmw/ADHSV BRUSHED/BLK FINISH AL	1	
40-25-0020	LABEL INSPECTION QUALITY	1	
40-25-0101	LABEL BAR CODE S/N 2-PNL LTX 16 1125502	1	
50-02-0067	PCBA MAIN MOTO-POD P1-1	1	

50-02-0067 POD2.0 (Moto Pod) Main PCBA			
Part Number	Description	Qty Per	Referenc Designator(s)
01-24-1000	RES 100R 1% 0805	3	R10,R37,R54
01-24-1001	RES 1.00K 1% 0805	3	R13,R15,R50
01-24-1002	RES 10.0K 1% 0805	2	R16,R51
01-24-1003	RES 100K 1% 0805	4	R26-R29
01-24-1004	RES 1.00M 1% 0805	1	R17
01-24-10R0	RES 10.0R 1% 0805	4	R8,R45,R53,R58
01-24-1100	RES 110R 1% 0805	1	R56
01-24-1501	RES 1.50K 1% 0805	1	R18
01-24-1502	RES 15.0K 1% 0805	1	R14
01-24-15R0	RES 15R 1% 0805	2	R106,R107
01-24-1620	RES 162R 1% 0805	1	R35
01-24-2000	RES 200R 1% 0805	11	R47,R61,R63,R64,R66,R69,R70,R72,R73,R75,R121
01-24-2001	RES 2.00K 1% 0805	9	R11,R81,R83,R86,R88,R90,R91,R93,R94
01-24-2002	RES 20.0K 1% 0805	16	R23,R24,R65,R67,R71,R74,R77,R78,R85,R89,R95,R99,R112,R113,R114,R115
01-24-2210	RES 221R 1% 0805	3	R20,R33,R36
01-24-22R1	RES 22.1R 1% 0805	2	R1,R2
01-24-2493	RES 249R 1% 0805	1	R60
01-24-4750	RES 475R 1% 0805	1	R21
01-24-4751	RES 4.75K 1% 0805	12	R34,R44,R46,R49,R59,R68,R79,R116,R117,R118,R119,R120
01-24-4752	RES 47.5K 1% 0805	2	R32,R48
01-24-47R5	RES 47.5R 1% 0805	8	R102,R103,R104,R105,R108,R109,R110,R111
01-24-5110	RES 511R 1% 0805	1	R19
01-24-51R1	RES 51.1R 1% 0805	8	R30,R31,R38,R39,R40,R42,R43,R52
01-24-5360	RES 536R 1% 0805	1	R55
01-24-5R11	RES 5.11R 1% 0805	2	R12,R22
01-24-6191	RES 6.19K 1% 0805	1	R9
01-24-6810	RES 681R 1% 0805	4	R82,R87,R96,R98
01-24-8871	RES 8.87K 1% 0805	4	R80,R84,R92,R97
01-48-0103	POT MONO 10KB LINEAR TAPER 25 mm D-SHAFT	7	R3,R7,R25,R41,R57,R76,R100
01-48-5103	POT DUAL 10KA AUDIO TAPER 25mm	1	R101
03-10-1108	CAP ELEC 1000uF 10V 20% RADIAL 10/12.5/5	2	C3,C44
03-12-0107	CAP ELEC 100uF 16V 20% RADIAL 6.3/11/5	2	C12,C16
03-12-0108	CAP ELEC 1000uF 16V 20% RADIAL10/16/5	2	C7,C14
03-12-0478	CAP ELEC 4700uF 16V 20% RADIAL 16/25/7.5	1	C47
03-12-1476	CAP ELEC 47uF 16V 20% RADIAL 5/7/5	1	C63
03-16-2108	CAP ELEC 1000uF 35V 20% 105C LowZ RADIAL 12.5/25/5	2	C6,C21
03-18-0105	CAP ELEC 1uF 50V 20% RADIAL 5/11/5	2	C26,C32

50-02-0067 POD2.0 (Moto Pod) Main PCBA			
Part Number	Description	Qty Per	Referenc Designator(s)
03-18-0106	CAP ELEC 10uF 50V 20% RADIAL 5/11/5	9	C8,C11,C42,C45,C46,C50,C51,C72,C76
03-24-0103	CAP MET-POLY 10nF 50V 5% TH 7.5/3.2/10.8/5	1	C20
03-36-0224	CAP ESTR 0.22uF 50V 5% TH 11/6/11.5/7.5	1	C15
03-50-0101	CAP NPO 100pF 50V 5% 0805	4	C22,C23,C31,C41
03-50-0102	CAP NPO 1nF 50V 5% 0805	13	C33,C35,C48,C53,C59,C66,C69,C81,C83,C90,C91,C99,C103
03-50-0272	CAP NPO 2.7nF 50V 5% 0805	2	C95,C98
03-50-0330	CAP NPO 33pF 50V 5% 0805	1	C64
03-50-0391	CAP NPO 390pF 50v 5% 0805	4	C92,C96,C100,C101
03-50-0470	CAP NPO 47pF 50V 5% 0805	1	C30
03-52-0101	CAP X7R 100pF 50V 10% 0805	2	C97,C102
03-52-0102	CAP X7R 1nF 50V 10% 0805	1	C17
03-52-0104	CAP X7R 0.1uF 50V 10% 0805	39	C1,C4,C5,C18,C19,C24,C39,C40,C49,C52,C54,C55,C56,C57,C58,C60,C62,C65,C70,C71,C73,C74,C75,C77-C80,C82,C84-C87,C89,C93,C94,C104,C108,C109,C110
03-52-0180	CAP X7R 18pF 50V 10% 0805	2	C67,C68
03-52-0332	CAP X7R 3.3nF 50V 10% 0805	1	C61
03-52-0473	CAP X7R 47nF 50V 10% 0805	16	C9,C10,C13,C25,C27-C29,C34,C36-C38,C43,C88,C105,C106,C107
04-04-0001	FERRITE BEAD 3-TURN 600R @ 100MHZ MATERIAL-61 RADIAL TH	2	L1,L2
06-20-0099	DIODE GEN PUR DUAL 70V 215mA 6nS SOT-23 SM BAV99-7-F	5	D10,D11,D28,D29,D31
06-23-0054	DIODE SCHOTTKY DUAL 30V 200mA 5nS SOT-23 SM BAT54S	2	D16,D19
06-32-0313	DIODE RECTIFIER 200V 3A SMB SM S3DB-13 - F	1	D18
06-32-4006	DIODE RECTIFIER 800V 1A SMA SM MRA4006T3G	4	D12-D15
06-34-0016	DIODE SWITCHING 75V 200mA 6nS SOT-23 SM BAS16LT1G	17	D17,D20-D27,D30,D32,D33,D34,D35,D36,D37,D38
09-06-7002	TRANS MOSFET N-CHAN 60V 7R5 SOT-23 SM 2N7002	3	Q4,Q5,Q6
09-10-3904	TRANS NPN SMALL-SIGNAL MMBT3904LT1GSOT-23 SM	1	Q3
11-00-1600	CRYSTAL 16.000MHZ LOW PROFILES6A16.000F10A22 METAL CAN TH	1	Y1
11-10-0501	FERRITE BEAD 500R @100mHZ 2.5A 1206 SM	2	L12,L13
11-10-2012	FERRITE BEAD 600R@100MHZ 300mA 0805 SM	18	L3,L4,L5,L6,L7,L8,L9,L10,L11,L14,L15,L16,L17,L18,L19,L20,L21,L22
12-00-0317	IC VREG ADJ 1.2-37V 1.5 AMP TO-220 LM317/NOPB TH	2	U8,U14
12-02-0015	IC REG +15V 1.5AMP TO-220F TH NJM7815FA#	1	U4
12-02-0115	IC REG -15V 1.5AMP TO-220F TH NJM7915FA#	1	U3
12-02-1088	IC REG ADJ TO-220 TH LM1086CT /NOPB	1	U13
12-02-7805	IC REG +5v 1.5 Amp TH	1	U9
12-54-0072	IC OP-AMP DUAL TL072CD SM	1	U5
12-54-0082	IC OP AMP DUAL TL082CD SO-8 SM	1	U19
12-54-0084	IC OP AMP QUAD TL084CD SM	3	U20,U21,U22
12-64-4528	IC CONVERTER 24B 48/96KHz AUDIO CODEC SM AK4528	1	U7
15-40-6138	IC 6N138 OPTO-ISOLATOR DIP-8 TH	1	U6
15-64-0014	IC 74HCT14 HEX INVERTER 6 SM	1	U12

50-02-0067 POD2.0 (Moto Pod) Main PCBA			
Part Number	Description	Qty Per	Referenc Designator(s)
15-64-0541	IC 74HCT 541 OCTAL BUF/DRIVER 3-STATE SOT-20 SM	1	U17
15-65-0074	IC 74LCX74MX_NL LOW VOLT CMOS DUAL D-FLIP FLOP SM	1	U2
15-72-0002	IC SRAM 512K x 8 sTSP-32 SM IS62WV5128BLL-55HLI	1	U10
15-84-2210	IC MCU LPC2210 16/32 Bit ARM w/10 Bit ADC LQFP144 SM	1	U15
15-86-0364	IC DSP 24-BIT TQFP-100 SM DSPB56364AF100	1	U11
15-92-5809	IC RESET 3.3V 5% ACTIVE-LOW SOT-23 SM LM809M3-3.08/NOPB	1	U18
18-10-0002	LED 7 SEG RED 3 DIG W/DP .56H 640nm BC56-12SRWA 12-P DIP TH	1	D9
18-20-0002	LED RED SUPER SML-LX0805SRC-TR 0805 SM	2	D5,D8
18-20-0004	LED RED HYPER 628nm 3020 SM	6	D1,D2,D3,D4,D6,D7
21-00-0014	JACK BARREL PCB MT 2.5mm DC PWR 3-PIN TH	1	J2
21-00-6616	JACK 1/4" TRS 6-PIN PCB MT HORIZ TH	4	J3,J7,J8,J9
21-04-5075	JACK DIN 5-PIN FEMALE MIDI PCB-MNT RT-ANG LN 05075	2	J4,J5
21-16-0045	JACK RJ-45 8-PIN FEMALE PCB-MNT RT-ANG	1	J6
24-12-0004	ENCODER 16-POS 4-BIT GREY CODE 18.5mm D-SHFT V-MNT PCB	2	E1,E2
24-24-2107	SWITCH ROCKER ON-OFF 2-PIN HOR MNT	1	PSW1
24-24-3001	SWITCH SLIDE SPDT ON-X-ON 3-PIN RT-ANGLE TH	1	SW9
30-00-0607	SCREW 6-32 x 7/16IN w/LK WASH PPZ STL	3	(U8,U9,U13)
30-12-2210	STANDOFF HEX .250 6-32 F-F .500 LG AL	3	(U8,U9,U13)
30-15-0007	INSULATOR XTAL 4.9mm C-C 11.8x5.6mm MYLAR	1	(Y1)
30-18-3030	CLIP GND PCB .30x.30x.07	6	GF1,GF2,GF3,GF4,GF5,GF6
35-00-0067	PCB MAIN MOTO-POD P1-1 REV.A	1	NOT AVAILABLE AS A REPLACEMENT PART NUMBER
45-02-0027	IC PROGRAMMED FLASH v2.51 c/s=53CEh MOTO-POD P1-1	1	U16

MOTO POD

EQUIPMENT REQUIRED FOR TEST MODE

- 1 MotoPOD COMPLETE UNIT
- 1 POWER SUPPLY PX2 (9VAC – 2000mA min)
- 1 MIDI LOOP BACK CABLE
- 1 FLOORBOARD LOOP BACK CABLE, FBV EXPRESS or FBV SHORTBOARD

Steps to Enter Test Mode

Press and hold the TAP TEMPO button, while you turn on the **POWER** switch. The display will indicate 'POD', '2.0', 'tSt' and then should display 't0P'. You are now in self-test mode.

t0 - SRAM Test

The SRAM test checks built-in ARM SRAM. This test runs automatically when entering self-test mode. It should show a 't0P' in the display. Press the UP-Arrow button to go to the next test. If the display shows 't0F', press TAP TEMPO to clear the result and press SAVE to re-run the test. If it still shows 't0F' abort testing and correct the problem.

t1 – FLASH Test

The FLASH test performs a basic test of the FLASH memory. This test runs automatically when entering self-test mode. It should show a 't1P' in the display. Press the UP-Arrow button to go to the next test. If the display shows 't1F', press TAP TEMPO to clear the result and press SAVE to re-run the test. If it still shows 't1F' abort testing and correct the problem.

t2 - LED test

The display should indicate 't2 '. Press the SAVE button to begin the test. When the test is completed, a 't2P' indicates PASS. Press the UP-Arrow button to go to the next test. The LED test sequences through the LEDs to demonstrate whether or not they illuminate. First, all LEDs are held on for 5 seconds. Next, all 7-segments of each display column are illuminated for one second, one-column at a time. Finally, the discrete LEDs are turned on in sequence for one second each. The order is left-to-right starting at the top row. Upon completion, the pass / fail result is normally displayed as passed (P). However, if the user presses TAP TEMPO during the test (to indicate that some LED did not illuminate) the pass / fail result will display as failed (F).

t3 - Button test

The display should indicate 't3 '. Press the SAVE button to begin the test. When the test is completed, a 't3P' indicates PASS. Press the UP-Arrow button to go to the next test.

The button test is to verify operation of the push-buttons. To get a passed indication, each push button must be pushed and released at least once. The first column of the display shows 'b' whenever a button is pressed. The second column shows the button number (1 through 8). The third column shows a lower case 'n' when the button is not pressed and an underscore when the button is pressed. In addition, each time a button is pressed, a corresponding LED is toggled on or off. This is helpful in keeping track of which buttons were pressed. Pressing and holding a button causes the corresponding LED to flash at the button repeat rate. Press the UP-Arrow and DOWN-Arrow button at the same time to complete the test. 't3P' should be in the display indicating a Pass. However, if the user presses TAP TEMPO during the test (to indicate that some Button did not illuminate) the pass / fail result will display as failed (t3F).

Note, for test purposes, the up and down arrow buttons are associated with the tuner left and tuner right LEDs.

t4 - Encoder test

The display should indicate 't4 '. Press the SAVE button to begin the test. When the test is completed, a 't4P' indicates PASS. Press the UP-Arrow button to go to the next test. The encoder test is to verify operation of the encoders. To get a passed indication, each encoder knob must be moved to the minimum position and the maximum position. The first column of the display shows 'A' for amp or 'E' for effect whenever an encoder knob is turned. The second column displays 'E' for encoder. The third column displays the encoder position in hex (0 to 9, A to F). Press the UP-Arrow and DOWN-Arrow button at the same time to complete the test. If the display shows 't4F', press TAP TEMPO to clear the result and press SAVE to re-run the test. Press the UP-Arrow and DOWN-Arrow button at the same time to complete the test. If it still shows 't4F' abort testing and correct the problem.

t5 - Jack sense test

The display should indicate 't5 '. Press the SAVE button to begin the test. When the test is completed, a 't5P' indicates PASS.

Insert and remove all 4 jacks. Leave the jacks inserted. When the test is completed, a 't5P' indicates PASS. Press the UP-Arrow button to go to the next test.

"dLc" is displayed whenever the direct left output is connected

"dLd" is displayed whenever the direct left output is disconnected

"drc" is displayed whenever the direct right output is connected

"drd" is displayed whenever the direct right output is disconnected

"gtc" is displayed whenever the guitar input is connected

"gtd" is displayed whenever the guitar input is disconnected

"HPc" is displayed whenever the headphone output is connected

"HPd" is displayed whenever the headphone output is disconnected

Press the UP-Arrow and DOWN-Arrow button at the same time to complete the test. If the display shows 't4F', press TAP TEMPO to clear the result and press SAVE to re-run the test. Press the UP-Arrow and DOWN-Arrow button at the same time to complete the test. If it still shows 't4F' abort testing and correct the problem.

t6 - Pot and A.I.R/CAB switch test

The display should indicate 't6 '. Press the SAVE button to begin the test. When the test is completed, a 't6P' indicates PASS. Press the UP-Arrow button to go to the next test. The Pot and A.I.R./CAB test is to verify operation front panel analog input circuits. To get a passed indication, the following must be done in any order:

The A.I.R / CAB switch must be moved to each position at least once". "AcA" is displayed when moved to the AMP position, and "AcD" is displayed when moved to the DIRECT position.

Each pot (except Master Volume) must be moved to the minimum position and to the maximum position.

The first column of the display shows 'P' whenever a pot is turned. The second column of the display shows the pot number. Pots are numbered from 1 to 7 in the clockwise direction starting with the DRIVE knob and ending with the EFFECT TWEAK knob.

The third column of the display shows the pot position (0 through 9).

Press the UP-Arrow and DOWN-Arrow button at the same time to complete the test. If the display shows 't6F', press TAP TEMPO to clear the result and press SAVE to re-run the test. Press the UP-Arrow and DOWN-Arrow button at the same time to complete the test. If it still shows 't6F' abort testing and correct the problem.

t7 - MIDI test

The display should indicate 't7 '. Press the SAVE button to begin the test. When the test is completed, a 't7P' indicates PASS. Press the UP-Arrow button to go to the next test. This test sends a MIDI test command via the MIDI output and waits up to four seconds to receive a test command via the MIDI input. If a MIDI loopback cable is attached between the MIDI output and the MIDI input, this test should pass immediately. Pressing TAP TEMPO during the MIDI test aborts the test with a failure indication.

t8 - Floorboard test

The display should indicate 't8 '. Press the SAVE button to begin the test. When the test is completed, a 't8P' indicates PASS. Press the UP-Arrow button to go to the next test. This test sends a floorboard test command via the floorboard output and waits up to one second to receive a test command via the floorboard input. If a test command is received on the floorboard input during the test, the test passes. If no test command is received, the test fails. Pressing TAP TEMPO during the floorboard test aborts the test with a failure indication. This test should work with a RJ-45 loopback cable, FBV Express or FBV Shortboard.

At this point, you are finished with the manual UI tests



MOTO POD FIRMWARE UP-DATING INSTRUCTIONS



EQUIPMENT:

- 1) PX2 power supplies:
For the US use P/N 11-32-0000
For the UK use P/N 11-32-0002
- 2) Midi Interface
- 3) Midi Cables
- 4) PC with Bome's SendSX, Midi-Ox or any other compatible midi software

STEP # 1: Connect the midi interface to your computer. Midi Out from the interface to Midi In on the Moto POD. Connect the appropriate power supply.



Figure # 1: Connect Midi interface and power supply. Picture above shows a Midisport 1x1. For multiple units to be up-dated simultaneously, a midi interface with multiple outputs should be used.



STEP # 2: Power Unit ON while holding the Midi button. “F” should appear on the three segment display. The “F” indicates that unit is ready for firmware up-date.



Figure # 2: Once “F” appears on the display, move on to the next step.

STEP # 3: Open the Bome’s SendSX or other compatible midi software.

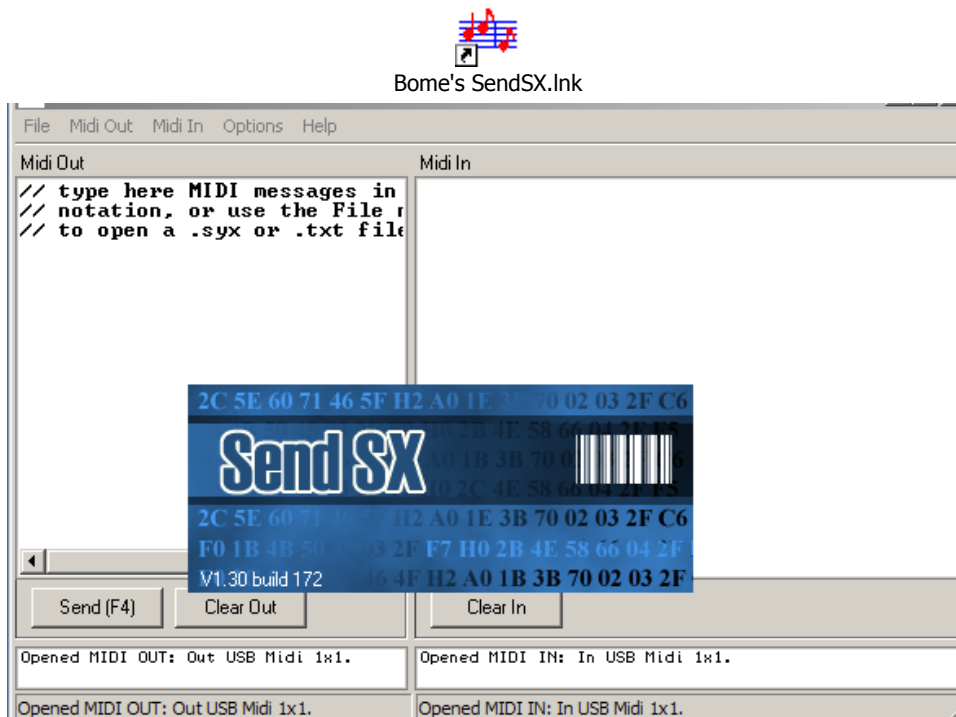


Figure # 3: Shows the Bome’s SendSX program when opened.



STEP # 4: Select Midi Out on the tool bar. Depending on what Midi interface is being used it should appear after selecting Midi Out (in this case it would be **-Out USB Midi 1x1**).

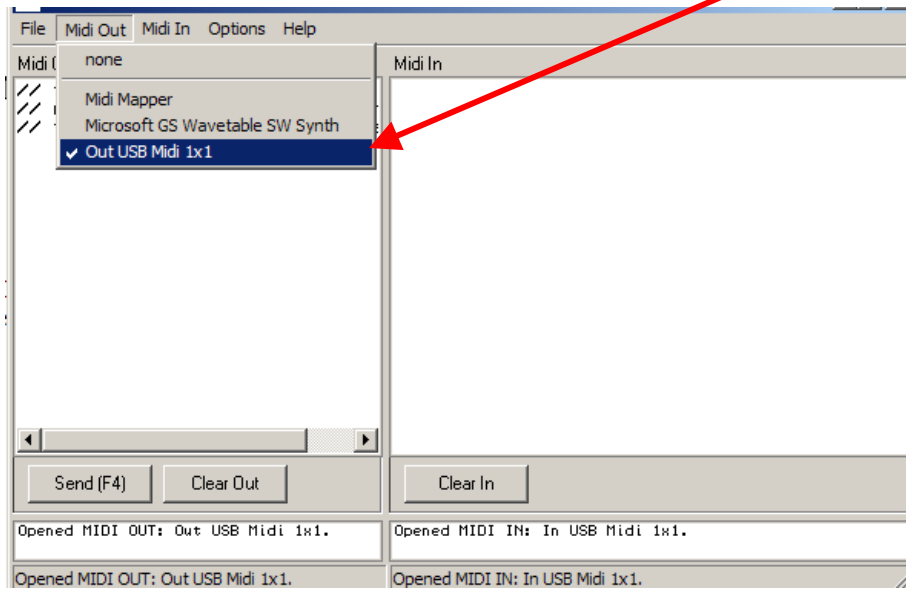


Figure # 4: Make sure to select the Midi Interface that is being used before advancing to the next step.

STEP # 5: Select Midi In on the tool bar. Depending on what Midi interface is being used it should appear after selecting Midi In (in this case it would be **- In USB Midi 1x1**).

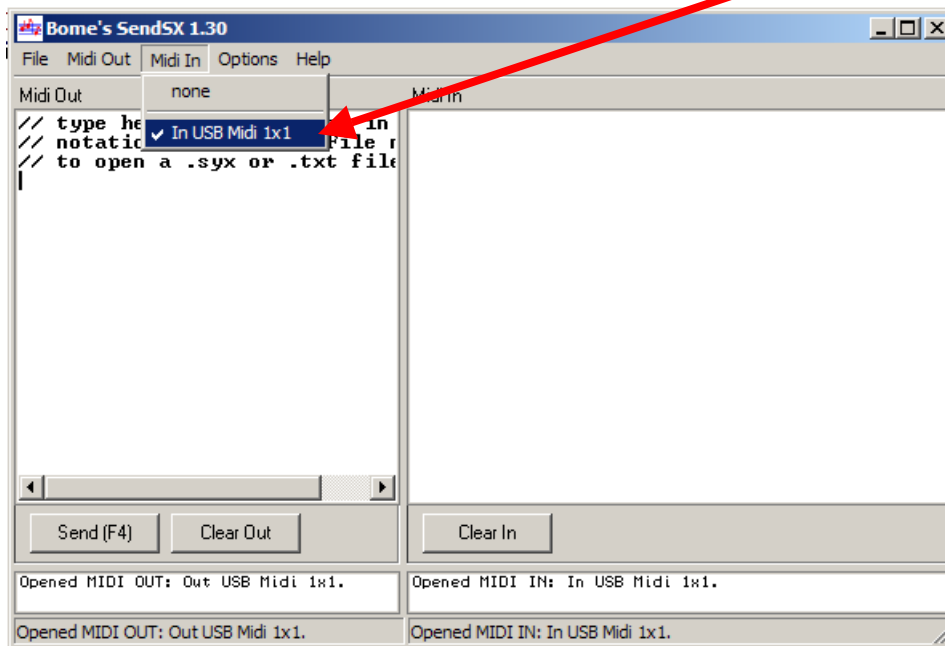


Figure # 5: Make sure to select the Midi Interface that is being used before advancing to the next step.



STEP # 6: Open the file on the toolbar as shown below.

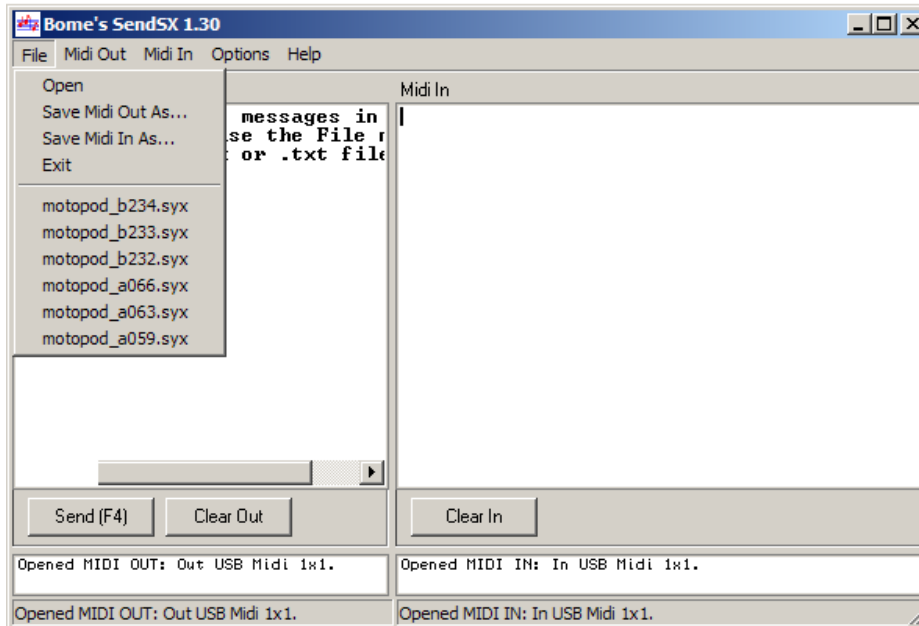


Figure # 6: Make sure to select the file option on the toolbar.

STEP # 7: Select the file with the production firmware version and press open.

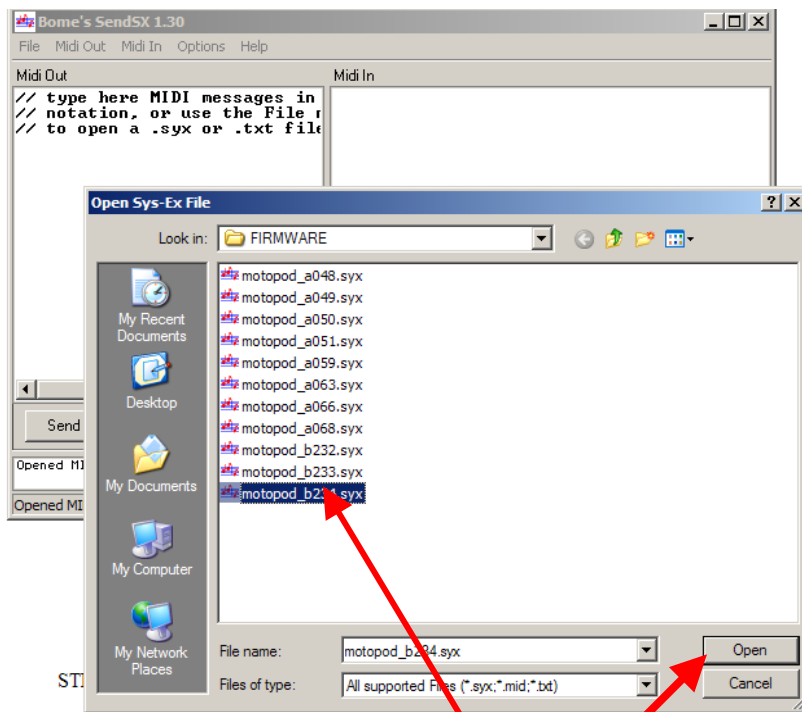


Figure # 7: After selecting the File, press Open.



STEP # 8: After completing all the steps above, the Moto POD(s) is/are now ready to be up-dated. Press Send (F4) to begin programming.

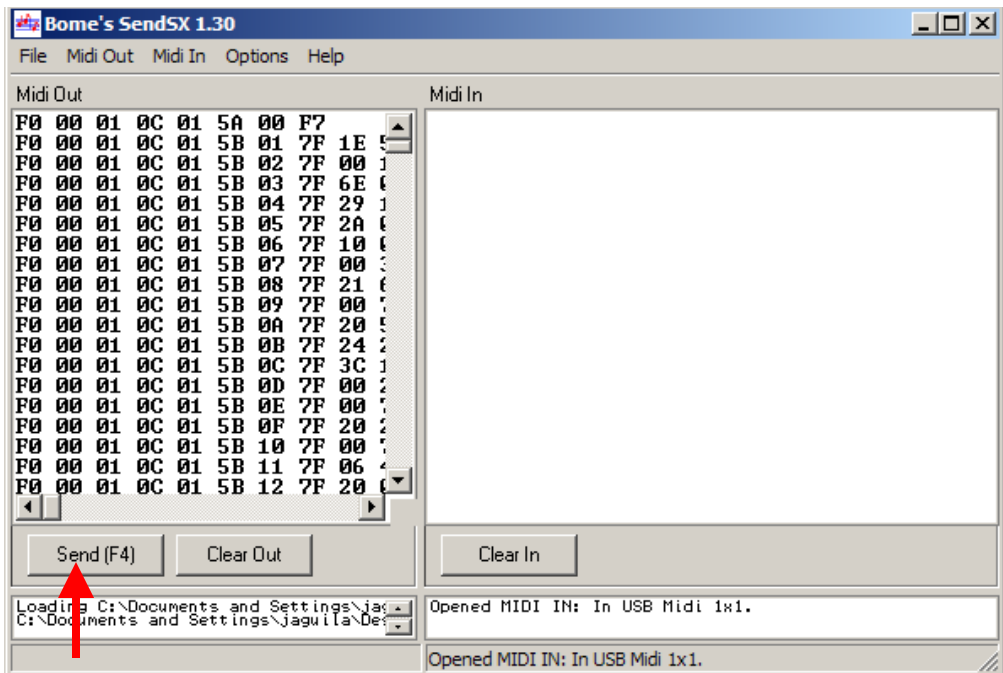


Figure # 8: All steps above must be done in sequence from 1-8. Press Send (F4) to begin up-dating.

STEP # 9: During up-dating of unit(s), display will exhibit an “L” indicating that the unit is Loading firmware.



Figure # 9: “L” on the display indicates unit up-dating firmware.

LINE 6

STEP # 10: Once up-dating of firmware is complete, the 3-segment display will show a “P” for pass. Momentarily the display will shut off for approximately 3 seconds or so. Following with 2.0 on display, then to “1A”.



Figure 10a: “P” indicates pass, firmware has been up-dated successfully.



Figure 10b: Display will go blank for Approximately 2 seconds.



Figure 10c: After displays goes blank, 2.0 will appear.



Figure 10d: After 2.0 is displayed, 1A will appear.

STEP # 11: Power cycle unit OFF.

STEP # 12: Power cycle unit ON while holding the Manual button. Verify that the correct firmware version **2.50** (or higher, depending on latest firmware) has been installed.

STEP # 13: Power cycle unit OFF.

STEP # 14: Power cycle unit ON while holding the two arrow buttons. This will initiate the unit and set it to default mode. Make sure all knobs are set to 12 o'clock position, except for the master pot – it should be set minimum (at zero).

POD[®]

Version 2.0

Basic Features Guide

Belangrijkste functies

Fonctions de base

Grundlegende Funktionen

Guía de funciones básicas

An in-depth exploration of the revolutionary technologies and pulsing tonal pleasures of POD, plus the insider info on the optional foot controllers: **FBV Express** and **FBV Shortboard**.

ElectroPhonic Limited Edition available at www.line6.com

February 2006 - Rev B

If your POD 2.0 has a jack labeled "FBV Pedal" and a display that can show three equal size characters, all the features are as described here. Older POD 2.0 units have a jack labeled "PEDAL," a display that shows one character and separate lights for A,B,C,D and other indications. Most of the features of those older PODs are similar to what's described here, but there are some differences, including different support for Line 6 controller pedals. The manual for the older POD 2.0 version is available from www.line6.com/manuals.

The serial number can be found on the underside of your POD. It's the number that begins with "(21)". Please note it here for future reference:

SERIAL NO: _____

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

CAUTION: To reduce the risk of fire or electric shock, do not remove screws. No user-serviceable parts inside. Refer servicing to qualified service personnel.

CAUTION: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



The lightning symbol within a triangle means "electrical caution!" It indicates the presence of information about operating voltage and potential risks of electrical shock.



The exclamation point within a triangle means "caution!" Please read the information next to all caution signs.

**YOU SHOULD READ THESE IMPORTANT SAFETY INSTRUCTIONS
KEEP THESE INSTRUCTIONS IN A SAFE PLACE**

Before using your POD, carefully read the applicable items of these operating instructions and safety suggestions:



1. Obey all warnings on the POD and in this Basic Features Guide.

2. Do not place near heat sources, such as radiators, heat registers, or appliances which produce heat.

3. Guard against objects or liquids entering the enclosure.



4. POD: Connect only to AC power outlets rated 100-120V or 230V 47-63Hz (depending on the voltage range of the included power supply).

5. Do not step on power cords. Do not place items on top of power cords so that they are pinched or leaned on. Pay particular attention to the cord at the plug end and the point where it connects to the POD.

6. Unplug your POD when not in use for extended periods of time.

7. Do not perform service operations beyond those described in the POD Basic Features Guide. In the following circumstances, repairs should be performed only by qualified service personnel:

- liquid is spilled into the unit
- an object falls into the unit
- the unit does not operate normally or changes in performance in a significant way
- the unit is dropped or the enclosure is damaged



8. Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening."

Please Note:

Line 6[®], POD[®], POD[®] xt, POD[®] xt Live, Bass POD[®] xt Live, POD[®] xt Pro, A.I.R.[™], FBV[™], FBV Express[™], FBV Shortboard[™], FB4[™], FBV2[™], Amp Farm[®], Line 6 Monkey[™], Line 6 Edit[™], and Variax[®] are trademarks of Line 6, Inc. All product names, trademarks, and artist names are the property of their respective owners, which are in no way associated or affiliated with Line 6. Product names, images, and artist' names are used solely to identify the products whose tones and sounds were studied during Line 6's sound model development. The use of these products, trademarks, images and names does not imply any cooperation or endorsement.

CONTROLS & CONNECTIONS

1 Power Switch - *Right edge of POD.* Flip this to bring your POD to life.

2 Input - *Bottom right side of POD illustration.* Plug your guitar in here. (You techies will want to know this is a mono, unbalanced connection).

3 Phones - *Bottom left side of POD illustration.* Plug in your headphones here for silent practicing. Volume's set by the Output Level knob. The headphone amplifier is designed to provide hot signals for a variety of headphones. As a result, you can get very loud output from this connector. Be sure to set levels carefully so you don't blow your head off when listening to your POD through your phones.

4 Output Level - *Far left knob on the POD illustration.* Controls the overall output level of POD. Also sets the headphone level. This setting is *not* saved when you store settings into one of the POD's memory locations. Changing the Output Level does *not* change your tone. So you can get the tone you want at *any* volume level.

POD will give the best signal-to-noise ratio performance when you have the Output Level control at max.

5 Left & Right Output - *Top left of POD illustration.* These are balanced 1/4-inch TRS connectors, and ready to rock with pro +4 dBu balanced equipment. They will also work happily with unbalanced - 10 dBV equipment and standard guitar cables. If you are running POD mono, use the Left output.

CONTROLS & CONNECTIONS

1 • 2

6 A.I.R. Mode - *Between Left and Right Outputs.* If you're plugging your POD into a guitar amplifier to use POD as a "front end" to change the amp's tone, flip the A.I.R. Mode switch to AMP, and set your amp for a clean tone. This defeats the speaker-microphone-room tone simulation of the A.I.R. processing. If you're using POD in almost any other setup (plugging direct into a mixer, recorder, PA, power amplifier, etc.) you want the DIRECT position of this A.I.R. switch.

7 Foot Pedal Connector - *Top of POD illustration.* Looks like a telephone connector on steroids. This is where you connect an optional Line 6 FBV series foot controller, such as the FBV Express or FBV Shortboard. *If your POD has this connector labeled just "PEDAL" rather than "FBV PEDAL," it is an older model that works with the older Floor Board and FB4 foot controllers and is not compatible with the newer generation FBV pedals.*

8 MIDI In & Out - *Top right of POD illustration.* Connect POD to your MIDI equipment to select channel memories (via Program Change messages) or automate POD settings (via controllers and/or Sysex). These jacks also give you access to the world of tone control and expansion that's available at www.customtone.com. That's where you can download the free Line 6 Edit software that turns your computer into a visual editor/librarian for your POD. It's also the place to tap into our exclusive online tone library of the signature sounds of the greatest guitarists, bands, songs and gear of all time.

9 Manual Button - *In the middle of your POD.* Press this button to light it and activate Manual Mode. In this mode, wherever the knobs are set is what you're hearing. Move knobs around to change sounds.

10 Channel Up/Down Buttons - *To the left of the **Manual** button.*

POD has 36 channel locations (POD is like a 36-channel amp). They are arranged in nine banks of four channels each. (The four are called A, B, C, and D.) You access POD channels by pressing the **Up** and **Down** buttons. When recalling a channel, its settings will not be reflected by the present knob positions – like you may have left the Bass knob at minimum whereas the just-recalled channel has this control set to max. To change anything, just grab the knob you want and tweak.

11 Amp Models - *Bottom left knob on your POD with words all around it.*

We've arranged the Amp Models around the knob so you get Line 6's four custom sounds first. From there, the models go clockwise from "cleanest" (Small Tweed) to "dirtiest" (Fuzz Box). And then we finish up with the Tube Preamp for processing non-guitar sources.

You have a selection of 32 Amp Models from this knob. To access models 17-32, hold down the **TAP** button and turn the **Amp Models** knob.

When you choose an Amp Model, a Cabinet Model is also loaded automatically. For instance, when you choose the Brit Hi Gain model (based on* the classic Marshall® JCM 800 head), a Cabinet Model based on* a Marshall® 4x12 will be loaded with it. You can choose a different cabinet via the **Effects/Cab** knob.

12 Drive - *Knob to the left of the button panel.* This knob controls how hard you're driving the input of the chosen Amp Model. Like the input volume control on a non-master volume guitar amp, higher settings give you more "dirt."

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13 Tone Controls - Following the arc of knobs up and to the right. **Bass, Middle, Treble.** Just like a regular guitar amp, only when you change Amp Models, the response and inter activity of the controls changes, too – to act like the tone controls of the original amp that inspired the Amp Model you’ve selected. POD also has a Presence bump that can be switched on and off when you hold the **Tap** button and turn the **Treble** knob. The detail is in the **Tap (HOLD) Functions** section that begins further in this chapter.

14 Chan Vol - This knob controls the relative volume level of the “channel” you are playing through. Use this to balance levels between the sounds you store in two different POD channels (say between your backing and lead tones). In general, you want to set the **Chan Vol** as high as possible to insure you’re getting the best signal-to-noise ratio performance.

15 Reverb - How much reverb do you want today? Spin this knob to set the Reverb level. Two flavors of reverb live inside POD; a model of a spring reverb, and a room reverb tone. Which you get depends on which Amp Model you select. Generally speaking, if the amp that inspired a given Amp Model had a spring reverb, that’s what you’ll get. If the amp didn’t have a reverb (like the 1968 Marshall® “Plexi” which the Brit Classic model is based on*), you’ll get the room.

16 Effect Tweak - This knob varies the effect you’ve chosen. Turn it up and the effect will go deeper, louder, faster, longer or just plain more. The speed of the effects (delay, tremolo, chorus, flanger, rotary speaker simulation) is set by the **Tap** switch (coming up in a page or two). If you set the **Effects** knob to Bypass, **Effect Tweak** will, of course, not change anything.

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17 Effects/Cabs - This knob selects which effect or combination of effects you get. This knob also allows you to choose Cabinet Models, and mix 'n' match them with the Amp Models. To choose a Cabinet Model, hold the **TAP** button and turn this knob; the available cabinets are labeled in gray around the knob.

18 Tuner - *Button in the middle of your POD.* Play a note on your guitar and POD will show you what it is on its handy display; all notes are displayed as naturals or flats, so you'll see Ab instead of G#. Play that string you're trying to tune again, spin its tuning key so it goes sharp and flat, and two little red arrows below the **Tuner** button will give you a light show (the idea is that the left pointing arrow will light if you're sharp. The right pointing arrow will light if you're flat). And both arrows will light at the same time when you've got it *just right*. Give any one of POD's buttons a push and the tuner disappears just as swiftly as it came and you're right back to normal POD operation.

Tuner Volume - You can adjust the tuning volume of your POD by turning the **Chan Vol** knob while the tuner is active (this doesn't affect the volume of your not-in-tuner-mode POD sound).

Tuner Reference - Want a different reference than A=440Hz? When you're in the tuner mode, turn the **Middle** knob on POD while watching the display. You can set the reference frequency anywhere from 436-445 Hz.

19 Noise Gate - Turns on and off the POD's built in Noise Gate. More Noise Gate details in the **POD Effects** chapter.

20 Tap - This control sets and displays the current tempo or speed of delay or tremolo/chorus/flange/rotary speaker. To use the Tap control, just tap the button at the tempo you want. For Chorus and Flange effects, the speed is actually displayed by the blinking of the button and set at *twice the speed of the effect* so you don't have to count to 23 between taps if you want to set up a really slow chorus. And for Tremolo the tapped tempo is displayed and set at half the speed of the Tremolo effect, so you can get fast tremolo settings even if you can't tap as fast as Bruce Lee. You can also simply hold the **Tap** button and turn the **Effect Tweak** knob to change the speed or tempo of your effects. This is especially useful if you are trying to nudge your **Tap** setting to just the right value.

20 Tap (HOLD) Functions - The Tap button also lets you access a second layer of POD features: Amp Models 17-32, Cab Model selection, Delay Feedback, Delay Level, Reverb Decay Time, a Presence Boost, a Volume Boost, and a Drive Boost. Here's the detail:

Amp Models 17-32: Hold down, and **keep holding down**, the **Tap** button as you turn the **Amp Models** knob to select Amp Models 17-32. Chapter 2 gives all the details on the **Amp Models**.

Cab Model Select (Effects Knob): Hold down, and **keep holding down**, the **Tap** button as you turn the **Effects** knob to select Cab Models. The cab models are labeled in gray. You'll find a list of the Cab Models at the end of **Chapter 2**.

Drive Boost On/Off (Drive Knob): Hold down, and **keep holding down**, the **Tap** button as you turn the **Drive** knob up past twelve o'clock, and you get the kind of extra 'dirt' that you'd expect from a Distortion pedal with the distortion control set low and the output control set high. It boosts your guitar signal before it reaches the Amp Model, so that you hit the model harder and get a dirtier sound.

Delay Repeats (Bass Knob): Hold down, and **keep holding down**, the **Tap** button as you turn the **Bass** knob to set Delay Repeats any time you're using a Delay effect. More Delay details are in the **Chapter 3**.

Delay Level (Middle Knob): Hold down, and **keep holding down**, the **Tap** button as you turn the **Middle** knob to set Delay Level any time you're using a Delay effect. More Delay details are in the **Chapter 3**.

Presence Bump On/Off (Treble Knob): Hold down, and **keep holding down**, the **Tap** button as you turn the **Treble** knob up past twelve o'clock, and you get a Presence boost, brightening your tone.

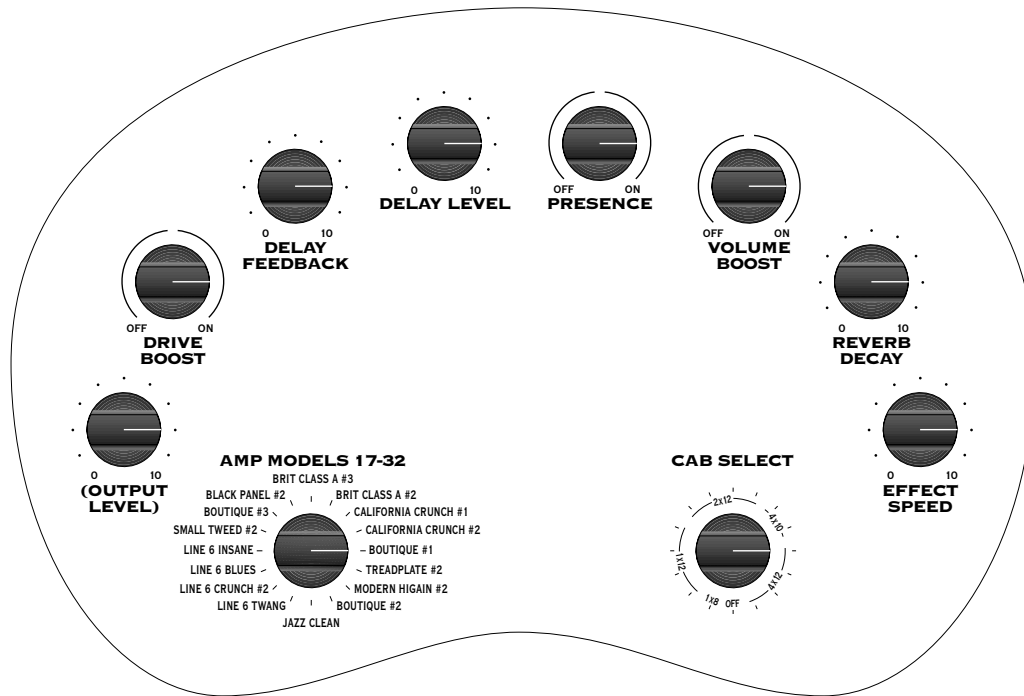
Volume Boost On/Off (Chan Vol Knob): Hold down, and **keep holding down**, the **Tap** button as you turn the **Chan Vol** knob up past twelve o'clock, and a Volume Boost kicks in. This boosts volume without extra 'dirt' – like for a lead boost.

Reverb Decay Time (Reverb Knob): Hold down, and **keep holding down**, the **Tap** button as you turn the **Reverb** knob to set Reverb Decay Time (the apparent "size" of the Reverb). More Reverb details are in the **Chapter 3**.

Effect Speed (Effect Tweak Knob): Hold down, and **keep holding down**, the **Tap** button as you turn the **Effect Tweak** knob to fine tune the current Effect's speed. More Effect details are in the **Chapter 3**.

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Hold the TAP button to access these features

21 Save - When you want to store your own tweaked up sounds in your POD, this button is the key.

When you are using one of the pre-programmed POD sounds, POD's display will be lit, telling which bank you are in – 1 thru 9 – and which channel letter – A thru D – you are in. If you turn one of POD's knobs, you'll notice the "EDITED" LED is lit in POD's display. This is a reminder to you that you have tweaked the memorized channel, and that you should *save* it if you want the memory to remember the tweak. To save your changes, press the **Save** button **21**. The button will start to

flash. Press the **Up** and **Down** **10** buttons and you will see that you are switching through memory locations A, B, C, and D in each of POD's nine numbered banks. Pick one to store your sound in, and press that **Save** button a second time. The button's light will stop flashing, and the sound is stored at the location you chose, replacing the sound that was stored there before.

If you aren't using one of the pre-programmed POD sounds – you're in Manual mode, and you're just getting the sound of where the knobs are set – you can store that state into a memory location the same way. Press **Save**, use the **Up** and **Down** buttons to choose a place to save to, and press **Save** again.

If you decide you don't want to store the sound after you've started saving, press the **Tap**, **Manual**, **Tuner**, **Noise Gate**, or **MIDI** button to cancel the save. (The save will also be canceled if you don't press any buttons for 5 seconds after having pressed Save.)

The **Save** button also lets you customize any of the Amp Models and Effects to your own taste, so your customized version of the amp or effect comes up instantly when you turn **Amp Models** or **Effects**.

22 MIDI - This button is used to set POD's MIDI channel and dump sounds via MIDI.

MODELED AMPS & CABS

WHICH AMPS AND CABS ARE MODELED?

Note: For the following descriptions of the Line 6 Amp Models, other references found throughout this manual, other amplifier model designations, and the names of musical artists, groups and effects, are all trademarks of their respective owners, which are in no way associated or affiliated with Line 6. These names, descriptions and images are used solely for the purpose of describing certain amplifier tones produced using Line 6's modeling technology.

There are 32 Amp Models living within your POD, plus 16 Cab Model selections. When you turn the **Amp Models** knob, you select an Amp/Cab combination. You can then mix 'n' match different cabs with the amp by holding the **Tap** button and turning the **Effects** knob. We list all the Amp Models and the Cabinet Models below, and describe the original equipment that inspired them:

Line 6 Clean - To create this Amp Model, we essentially grafted the crisp top end of a solid state amp, but with a rich, satisfying tube amp-style bottom.

Line 6 Crunch - Our "boutique" sound. Not too clean, but not too raging. Great for modern blues or jazz, this sound should be like a fine cognac, smooth and warm going down, but with a nice kick. The **Mid** control is located before the Amp Model's **Drive**, but the **Bass** and **Treble** controls are placed after the **Drive** for maximum range.

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Line 6 Drive - Our version of the modern, super-saturated, high gain, lead amp; smooth, yet biting. All the tone controls here are post-Amp Model for maximum control with minimum muddiness. It's like playing through a collection of amps simultaneously – a studio technique that has made possible some of the greatest guitar tones of modern recordings.

Line 6 Layer - Line 6 Clean meets Line 6 Drive. As we've already mentioned, many guitarists and producers have experimented with running multiple amps simultaneously, with each amp making a contribution to the overall tone. The **Drive** knob acts as a blender control – fully left you've got big bottom 21st Century Clean, and fully right you've got paint-peeling Ultra-drive. Set it anywhere in between, and you get to have your cake and smear it all over your audience, too.

Small Tweed

Based on* a 1952 “wide panel” Fender® Tweed Deluxe Reverb®.



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This Amp Model will snarl with the best of them. The original amp had only a single tone control, essentially a Treble roll off. We set up the **Treble** knob to give you this Treble roll off when using this Amp Model. Which left us with the **Bass** and **Middle** knobs just sitting there. That just didn't seem right, so we figured out a way to put those knobs to work without mucking about with the authenticity of this Amp Model's treble tone control. We set up the **Bass** and **Middle** as post-Amp Model controls, which essentially lets you EQ up your tone as you would do on a mixing console after recording your amp. Set the **Bass** and **Middle** knobs at halfway to put them in “neutral,” and try the Treble knob somewhere above halfway for a classic Tweed sound.

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Tweed Blues - Based on* the classic '59 Fender® Bassman® 4x10 combo. The



amp that started it all – instant rock and roll tone. Originally a bass guitar amp, the Bassman® became a Blues staple for 6-string guitarists. It has the fat bottom end you'd expect from a bass amp but also has the Fender twang on the top. The Bassman® was the “blueprint” for POD's Tweed Blues. Incidentally, when Jim Marshall built his first amps with Ken Bran they were heavily influenced by the early Bassman®. One of the interesting things about the Bassman® is just how interactive the Mid and Treble controls are. The Mid control isn't a bandpass, as in most tone control setups. Instead, it's almost like a second treble control. The two are additive, so if you're running the **Middle** knob higher than halfway up, you'll find that the Treble control might give you more bright than you really want. On the other hand, when you turn the **Middle** knob down, you'll probably want to boost the **Treble**. The Bassman®, like many of the amps modeled for POD, didn't have a master volume. So to get the kind of tone that the Bassman® can deliver at higher gain settings, you had to crank it up loud enough to do some serious damage to anyone who might be standing close by. With POD, you can get that kind of tone at a bedroom or studio level – or through your headphones even! Try a **Drive** setting of about 4 or 5 – it's guaranteed to dredge up the best R&B licks you know.

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Black Panel - Based on* the blackface Fender® Deluxe Reverb®.



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The Holy Grail for many blues, country, and “roots” players has been a blackface Fender® Deluxe Reverb®. After listening to quite a few candidates for modeling, we stumbled upon an extremely cool amp from 1964. Most players love a Deluxe Reverb® when it’s turned up to about 7 for a nice gritty sound that cleans up when you back off your guitar’s volume knob just a little. Notice how the tone control response changes as this Amp Model’s **Drive** is changed; clean settings are crisp and present, while more driven settings will mellow the high end, which is similar to the response of an actual amplifier. We’ve set up the **Middle** knob for this model, so you can add some post-Amp Model Midrange contouring for a little more flexibility. Once again, set the **Middle** knob to its “neutral” 12 o’clock position for the classic sound of a Fender® Deluxe Reverb®.

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Modern Class A - Based on* a Matchless Chieftain.



The '96 Matchless Chieftain, which was studied for the Modern Class A selection, is a very expensive handmade amp. The Matchless has an EL34-powered “modern class A” design – hence this model’s name – and a unique tone (largely due to the complicated EQ scheme). The sound is sort of “future retro.” Its soft clipping is typical of Class A amplifiers; almost a “hi-fi” sound in a great rock and roll amplifier.

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Brit Class A - Based on* the Vox® AC 30.



Music was changing in the early 60's and guitarists were asking for more brilliance & twang. So the Jennings Company, makers of Vox® amps, decided to add Treble and Bass controls (and an extra 12AX7 gain stage, incidentally); this additional circuit became known as Top Boost. The AC 30 with Top Boost was the amp made famous by many British invasion bands. Much of the unique character of the Vox® sound can be attributed to the fact that Class A amps overdrive in a very different way than Class AB. Brian May of Queen, Mike Campbell of Tom Petty's Heartbreakers, and The Edge of U2 have also used classic AC 30s to make their music. On this Amp Model, POD's **Middle** control acts like the Cut knob on the AC 30. Although usually played fairly clean, a cranked AC 30 has a great saturated lead tone, a la Brian May on the early Queen albums. A non-Top Boost AC 30 is modeled for POD's Brit Class A #2 Amp Model, which comes up in a few more pages.

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Brit Blues - Based on* the Marshall® 1964-65 JTM-45 head.

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With block logo (predates the “scrolled” Marshall® logo), complete with a gold Plexiglas (Plexi) front panel, although the sound normally associated with Plexi amps comes from the late 60’s, 50-watt version that was the inspiration for the next in POD’s line up of Amp Models. The JTM-45 marked the beginning of Marshall’s transition from a mellower Fender-like tone to the distinctive bright “crunchy” sound of the later Marshalls.

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Brit Classic - Based on* the infamous Marshall® Plexi.



Coveted by tone connoisseurs the world over. By this time (ca. 1968) Marshall® had completely changed the circuitry away from the Fender® 6L6 power tube heritage and moved to an EL34 tube; another major tone difference was due to the necessary output & power supply transformer changes. (See, we told you we spent some time looking into all this stuff.) All this mucking about added up to create a tone forever linked with Rock Guitar. Amps of this era didn't have any sort of master volume control, so to get this sound you'd have to crank your "Mark III Super Amp" to max – just the thing to help you really make friends with the neighbors. Hendrix used Marshalls of this era; 20 years later Van Halen's first two records owed their "brown sound" to a 100-watt Plexi. In order to get a crunch sound out of a Plexi you would likely crank up the input volume and the tone controls (to 10!). You'll find that the Brit Classic, in keeping with our basic "make-it-sound-a-whole-lot-like-the-original" concept, is set up to do pretty darned near the same thing. Max out the **Middle** and **Treble** knobs and turn **Bass** to about 9 or 10 o'clock on your POD when using this Plexi-inspired Amp Model and you can treat those nice neighbors to a tasty slice of fat rock tone.

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Brit Hi Gain - Based on* the Marshall® JCM 800.



Turn to this Amp Model to conjure up tones of the coveted JCM 800, one of Marshall's most universally-acclaimed modern amps. This updated version of the Plexi continued Marshall's heritage with added gain and edge for a new generation of rock guitarists. One of the biggest differences here is that the tone controls are located after the preamp tubes. We worked with a 1990 JCM 800 with Master Volume to develop this model. Incidentally, some versions of JCM800's get their distortion from clipping a diode. The amp we modeled uses a tube for distortion. This is the metal sound Marshall made famous. Although not many people play Marshalls clean, it's a great tone, so you should also be sure to check out this model with a low **Drive** setting, too. Of course, you can always pump up the drive and rage....

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TreadPlate - Based on* a 1994 Mesa/Boogie® Dual Rectifier® Tremoverb.



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You can use this Amp Model to get that tight, high gain sound used by bands like Dream Theater or Metallica. Mesa/Boogie® made their mark in the late 70's and early 80's by adding master volumes and more gain stages to amps with Fender-style circuitry. You can hear the Fender® heritage but with more “punch” in the mids. The Dual Rectifier's tone controls are post-distortion and, as with the tone sections of most of the amps we based our models on, the individual controls interact with each other and with the **Drive**. With high drive settings, you can scoop the **Mids** and crank the bottom end for some great Seattle grunge sounds.

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Modern Hi Gain - Based on* the Soldano X88R.

The Soldano sound is intensely overdriven, and also has EQ after the preamp distortion. This oversaturated tone is well-suited to thrash metal and grunge bands, but has also been used more subtly by artists like Eric Clapton. This is a good Amp Model to use if you want to get a current Van Halen or Joe Satriani sound. The POD Modern Hi Gain Amp Model is based on one of Mike Soldano's rackmount preamps. Talk about high gain preamp tube distortion! The X88R we studied to create this Amp Model would have been the rage for Los Angeles studio use in the late '80s.

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Fuzz Box - Based on* the Arbiter® Fuzz Face.



Although not technically an amp, we felt that the unique tonal qualities of the classic 1960's Arbiter® Fuzz Face earned it a place among the amps modeled to create POD's Amp Models. This fuzz box used broad frequency transistor-based clipping. The result is a buzzing kind of distortion that has become popular again with the alternative and grunge set. Jimi Hendrix was among the first guitarists to popularize the Fuzz Face in the States, but our model is considerably dirtier than the tones found on "Are You Experienced." Try playing "Satisfaction" by the Stones, or the lead from "American Woman" by The Guess Who. Liberal use of the **Bass**, **Middle**, and **Treble** controls will let you go beyond the tones that the Fuzz Face could deliver, enabling you to discover your own unique recipe for those elusive fuzz tones in your head. Just a note: when recording "Purple Haze", Jimi didn't even use an amp – he just went straight from a Fuzz Face to an Orange® power amp to a 4x12 cabinet. Which is the same sort of tone you find here....

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Tube Preamp - Not even close to being a guitar amp, but once we got started, we just couldn't stop ourselves. The thinking went like this: 'Once people get this POD, it's gonna be so great that they're gonna wish they could use it for everything – warming up keyboards, crunching up drums, fuzzing up vocals. We've gotta give 'em something to do that!' So we did. The **Tube Preamp** Amp Model lets you warm up any sound source the way producers and engineers often do in the studio with vintage tube gear. For more “edge” on vocals, try running your vocal tracks through POD. Or punch up (or munch up) a synth bass track by sending it through POD and cranking up the drive and EQ controls to suit your taste. Although this is not actually a guitar amp model, you can even get some great guitar tones out of it. Also try using it as a direct box for bass. When you do this stuff, you want to use the **Drive** control like a mix knob on a reverb to control how much processing you want to hear. You generally don't want to mix the pre-POD sound with the post-POD sound because of the comb filtering that results. Instead, jack the sound source right into POD and then only monitor it post-POD processing. With the tone controls at 12 o'clock, the EQ is “flat.”

Line 6 Twang (Hold Tap + Line 6 Clean) - Glassy high end, plus the snap and bite of a vintage tube amp. Things don't really get too crunchy until you get to the top range of the **Drive** knob.

Line 6 Crunch #2 (Hold Tap + Line 6 Crunch) - Looking for a 50 watt tube head tone with better EQ? Scoop out the **Mids** even at high **Drive** settings.

Line 6 Blues (Hold Tap + Line 6 Clean) - This tone is based on the '65 Marshall® JTM-45 Bluesbreaker but incorporates wider range tone controls. Once you get into higher Drive settings, this Amp Model begins to transition into a variant of the Budda Twinmaster (a high end boutique amp) for sweeter overdrive tonality.

Line 6 Insane (Hold Tap + Line 6 Clean) - Our goal here was to provide you with as much input gain distortion as possible short of complete meltdown. You get ridiculous, rich tube drive to shame the distortion of pretty much any amp on the planet while still retaining tonal definition and character. As a result, you get lots of bottom end and cabinet character with tons of wide-ranging tone shaping. Crank up the Drive control and take no prisoners!

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Small Tweed #2 (Hold Tap + Small Tweed)

Based on* the 1960 Fender® Tweed Champ®.



This is a great sound when the **Drive** is cranked (not bad clean, either). These amps were originally designed to be sold to beginners, but rock and rollers quickly discovered that you could get a great distorted sound at fairly low volume levels. Many of the classic guitar solos of the 50's were recorded through a Champ®. The Champ® had no tone control, only volume. With your POD, it's easy to get a classic Champ® tone. Just leave all the **Bass**, **Middle**, and **Treble** controls parked at 12 o'clock, which means they are "flat," making no contribution to the tone.

Still, we'd hate to waste those things, so we figured out a way to put the **Bass**, **Middle**, and **Treble** controls to work without mucking about with the authenticity of this Amp Model. When using this Amp Model, all these tone controls are applied after the Amp Model processing, which essentially lets you EQ up your tone as you would do on a mixing console after recording your amp. Remember, for the authentic emulated sound of the Champ®, set all the tone controls at 12 o'clock.

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Boutique #3 (Hold Tap + Tweed Blues) - Based on* a Budda Twinmaster head. The Budda philosophy is all about power tube distortion. Simplicity is the key. With relatively low front end gain, highly interactive tone controls, and tube rectifier “sag” it’s great at getting a classic cranked sound for small gigs and recording. Once again, since the Twinmaster has no mid control, we’ve added a little bonus in the form of some post-Amp Model mid contouring available via POD’s Middle control. As usual, set this control to 12 o’clock to get groovy with the unadorned Budda-style vibe.

Black Panel #2 (Hold Tap + Black Panel)

Based on* a 1965 Blackface Fender® Twin Reverb®.



A real workhorse, everybody used it, from jazz and country players to serious rockers. I remember seeing Johnny Winter at a concert where both he and Rick Derringer – am I dating myself or what? – were using six Twins stacked in a pyramid each. We were in the second balcony and it was REALLY loud even all the way back there. The Twin has a lot of tonal flexibility and is at home in a great many different situations. It never gets extremely overdriven and dirty, mostly just louder; a lot louder. This is the amp for the classic surf sound. Dial up the spring reverb, switch on the tremolo, crank up the volume, and look out for bikinis.

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Brit Class A #3 (Hold Tap + Modern Class A)

Based on* Channel 1 of a wonderful 1960 Vox® AC 15.



Here's another Vox-inspired Amp Model. The sound is similar to that of the Vox® AC 30s that were studied for POD's Brit Class A and Brit Class A #2 Amp Models, but this is a smaller amp (one, instead of two, 12" speakers) with a warmer, more "woody" sound. Once again, the original amp had only a single tone control – a treble cut. We faithfully modeled that and then slipped in some post-Amp Model **Bass** and **Middle** contouring. Set the **Bass** and **Middle** in neutral (12 o'clock, or halfway up) and play with the **Treble** control to get yourself some of those classic British invasion sounds.

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Brit Class A #2 (Hold Tap + Brit Class A)

Based on* the Normal Channel of a Non Top Boost Vox® AC-30.

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As we mentioned in reference to the Vox® AC 30 Top Boost, the early Vox® amps were the first designed especially for electric guitar (Hey, some early amps from other manufacturers have Accordion inputs! Polka, anyone!), and used Class A power amp designs, rather than the much more common Class AB type. We were lucky enough to find what we are told was one of Bryan Adams' favorite AC 30s for recording. Lenny Kravitz happened to be using it the week before we began testing. It was one of the gems in a great collection of vintage amplifiers offered for rental in Los Angeles, where Line 6 is located. We later bought this amp, and continued to hone our emulation of it to bring you the Amp Model it inspired in the POD. This is definitely a good place to start to get yourself some of those classic British invasion sounds. Like the AC 15, the AC 30 NTB has only a single treble control, so POD's **Bass** and **Middle** controls here are set up for boost after the Amp Model processing to add a little extra flexibility without compromising the accuracy of the model. The 12 o'clock setting on these controls is flat response.

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MODELED AMPS & CABS

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California Crunch #1 (Hold Tap + Brit Blues)

Based on* a Mesa/Boogie® Mark IIc+.



The first of the “boutique” amp makers was probably Mesa/Boogie®. Boogie made their mark in the late 70’s and early 80’s by adding master volumes and more gain stages to amps with Fender-style circuitry. You can hear the Fender® heritage but with more “punch” in the mids. This model is based on the Clean Channel of the classic Mesa/Boogie® Mark IIc, with the enhancements of the + version of the Mark IIc circuitry design.

California Crunch #2 (Hold Tap + Brit Classic)

Based on* the Drive Channel of the IIc+. Try your Santana licks here.

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Boutique #1 (Hold Tap + Brit Hi Gain) - Based on* the Clean Channel of the Dumble® Overdrive Special. The Dumble® Overdrive Special is one of those incredibly expensive, custom amps that most people never get a chance to actually get close to in this lifetime. Each incarnation of the Dumble® magic is a little bit different, because each of these amps is hand built for a specific customer, and voiced to match their playing and desires. With that in mind, we based this Amp Model on the analysis of several different Dumble® Overdrive Specials. Despite this tuning to the individual owner, these amplifiers tend to have a number of features in common; the clean channel is very sensitive to attack, and dynamically responsive, and the drive channel has a thick, liquid, singing sustain that doesn't lose string definition when driven hard. POD's tone controls on this Amp Model are quite subtle, like those of the Dumble® itself.

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MODELED AMPS & CABS

TreadPlate #2 (Hold Tap + TreadPlate)

Based on* a 1995 Mesa/Boogie® Dual Rectifier® head.

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As with the Tremoverb combo that was modeled for the POD TreadPlate Amp Model, the Dual/Rectifier® was part of Boogie’s more modern, high gain approach for that “big hair” sound. In contrast to the earlier Boogies, the Dual/Rectifier’s tone controls have more influence at high gain settings, so you can scoop the mids and increase the bottom end.

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Modern Hi Gain #2 (Hold Tap + Modern HiGain)

Based on* a Soldano SLO – Super Lead Overdrive – head.



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Unlike the X88R preamp used for the POD Modern Hi Gain Amp Model, the SLO includes a presence control, plus other little details that give it a bit of a different sound. With the **Drive** control cranked way up, you'll get sustain for days.... Go out'n'ave a bite – when you come back it'll still be sustaining!

Boutique #2 (Hold Tap + Fuzz Box) - Based on the Dumble® Overdrive Special Drive Channel (just described). If you like the Dumble® sound, you might also want to check out the Line 6 Crunch model – it was created to deliver a similar kind of tone.

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MODELED AMPS & CABS

Jazz Clean (Hold Tap + Tube Preamp)

Based on* the classic Roland® JC-120.

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This transistor amp was known for a strident clean sound and built-in stereo chorus. When using the Jazz Clean Amp Model, try cranking up the **Treble** for a shimmering clean sound that'll cut through just about any mix. It's also perfect for that 80's "new wave" sound. Alternatively, try backing off on the **Treble** and turn up the **Bass** and **Middle** for a darker jazz tone. It'll give you an essentially flat response, providing a balanced tone across the fret board for jazz chord melodies or single-line phrasing.

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Cabinet Models - The following Cabinet Models are available on POD, and are accessed by holding the **Tap** button and turning the **Effects** knob: The Cabinet Model is automatically selected by the Amp Model.

1x8	Based on* a 1960 Fender® Tweed Champ®
1x12s	Based on* a 1952 Fender® Tweed Deluxe Reverb®
	Based on* a 1960 Vox® AC-15
	Based on* a 1964 Fender® Blackface Deluxe Reverb®
	Line 6 1x12
2x12s	Based on* a 1965 Fender® Blackface Twin Reverb®
	Based on* a 1967 Vox® AC-30
	Based on* a 1995 Matchless Chieftain
	Line 6 2x12
4x10s	Based on* a 1959 Fender® Bassman®
	Line 6 4x10
4x12s	Based on* a 1996 Marshall® with Vintage 30s
	Based on* a 1978 Marshall® with stock 70s
	Based on* a 1968 Marshall® Basketweave with Greenbacks
	Line 6 4x12
No Cab	You will probably want to use this Cabinet model with the Tube Preamp model for non-guitar sources. It is selected by default when you pull up the Tube Preamp Amp Model.

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POD EFFECTS

DEEP EDITING

For tweak heads and MIDI-philes, we've got a free MIDI editor/librarian program called **Line 6 Edit** ready for download at www.customtone.com. The program runs on Macintosh and Windows computers, and can turn your computer into a POD command station. It lets you take "remote control," and do everything that can be done from your POD's front panel, plus a bunch of other cool stuff like saving and swapping sounds on the computer, as well as accessing additional effect parameters that lurk deep within the heart of POD.


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POD ONBOARD EFFECTS

In addition to all the great Amp Models built into POD, there are some great sounding effects. To pick which effect you want to hear, turn the **Effects 17** Knob. When you first select the Effect you want, your helpful POD will preset the effect's parameters so you're instantly ready to go with a great sound. You can adjust the character of the effect you've chosen by tapping the **Tap 20** control, and turning the **Effect Tweak 16** knob like so...

POD EFFECTS

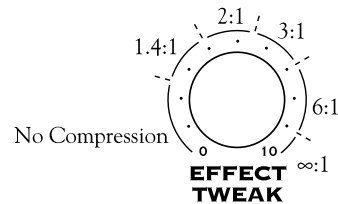
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Reverbs - Reverb  is the effect that makes it sound like something is in a room. It's basically a whole bunch of echoes smeared together to give you a sense of sound in an ambient space. With POD, reverb is always available. You control how much with the **Reverb** knob. You can also set the Reverb Decay Time by holding the **TAP** button and turning the **Reverb** knob; this allows you to adjust the apparent size of the reverberant space.

There are two basic reverbs in your POD; a model of a spring reverb, and a standard digital room reverb. The reverb type is chosen when you select an Amp Model. Generally speaking, if the amp that inspired a given Amp Model had a spring reverb, we give you the spring reverb. If the amp didn't have a reverb (like the 1968 Marshall® "Plexi" which inspired the Brit Classic model), we've given you the room reverb. The back cover foldout and **Amp Models Appendix** run down the details on the standard pairings or the Amp Models/Reverb Types.

Compressor - A compressor "squeezes" your sound so that the softer sounds are louder and the louder sounds won't be too loud and jump out at you. It helps to even out your playing, and can also be used to give increased sustain. Compression is often expressed in ratios, like 2:1 or 5:1. The higher the ratio, the less difference there is between your softest and loudest playing. The **Effect Tweak** knob will control the compression ratio. There are 5 settings: 1.4:1, 2:1, 3:1, 6:1, and ∞:1. (The figure eight on its side means "infinity." With **Effect Tweak** set to max, you get infinite compression, which is the same as having a limiter.)

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The compression is pre-Amp Model processing, so its like having a compressor pedal.

Tremolo - Modeled after* the classic Fender® tremolo. The **Effect Tweak** knob controls the depth; **Tap** controls the speed. The tremolo speed will be twice as fast as you tap (and twice as fast as the **Tap** light flashes), allowing you to set fast tremolos without having to tap like a madman.

Chorus - You'll find two different chorus sounds in POD. Chorus 1 is modulated by a square wave, so it sounds more like a “rackmount effect” type chorus. Chorus 2 is modulated by a sine wave with more feedback, so it has a richer harmonic content with more movement. Chorus 2 was massaged to closely approximate the classic tone of an old Roland® CE-1 box. The **Effect Tweak** knob spins you through a range of chorus settings from subtle to extreme; **Tap** controls the speed of the effect. By the way, if you want to get a really slow chorus, you have to tap really slow – try about 6 or 7 seconds between taps. And if you don't like that, remember that you can always set your tempo by holding down the **Tap** button and then twisting the **Effect Tweak** knob to wherever you want to go.

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POD EFFECTS


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Flanger - Flanging is that familiar “jet-plane” whoosh you remember from recordings of the 70’s. Originally the effect was used rarely, mostly because engineers had to use finger pressure on one of the tape reels so they could slow down and speed up the tape in tiny increments to get this effect. Since the part of the tape reel they pressed on is called the flange, you can see how the effect got its name. As soon as someone figured out how to get this effect electronically, it was no longer rare and was probably used a little too much for the next several years. We’ve got two flavors of flanging available on POD, both of which closely model the tone of an old ADA flanger stomp box. Flanger 1 is a light flange with no pre-delay, and is subtler than Flanger 2, which is inverted, and has a deeper range (depth). The **Effect Tweak** knob gives you a range of Flanger effects from just a bit to Holy Cow! **Tap** dials in the speed.

Rotary - This effect simulates the effect of a mic’d, rotating high frequency speaker horn, like on a Leslie®. Listening to this effect in stereo through headphones could cause motion sickness. Rotary speakers have two speeds: slow and fast. We’ve set up POD’s Rotary Speaker emulation to select a fixed slow speed if you tap slowly, and a fixed fast speed if you tap quickly. When you switch from one speed to the other, you’ll notice that the speed doesn’t change immediately, but gradually changes from one speed to the other, just as a real rotating speaker’s speed would ramp from one setting to the other. The **Effect Tweak** knob controls the amount of Doppler effect (pitch modulation); **Tap** controls the speed.

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Delay - Sometimes referred to as echo or slap back. The **Effect Tweak** knob controls the level; **Tap** controls the delay time – in other words, how far apart the echoes are spaced from each other. When you are using quicker delay times, we cut down the number of repeats so you can get those rockabilly and surf slap back sounds. You can fine tune the number of delay repeats by holding the **Tap** button and turning the **Bass** knob, set the delay level by holding the **Tap** button and turning the **Middle** knob, and fine tune your delay time by holding the **Tap** button and turning the **Effect Tweak** knob. By the way, we let you set the maximum delay level high enough that your delay's echoes can be louder than your direct signal. You may find this handy for getting delay effect setups like U2's The Edge is known for.

Noise Gate - POD includes a built-in noise gate, intended to reduce the hiss and noise guitar systems tend to put out when you're not playing, especially at high gain settings (since high gain means that noise is turned up along with your guitar sound). The Noise Gate is on when its button  is lit. Any time you want to disable the noise gate, press the button so that the light turns *off*. Turn it on again, and notice how the hiss magically disappears....

COMBINED EFFECTS

The rest of the effects are combinations of Delay and one other effect. They should be fairly self-explanatory. **Tap** sets the delay speed for all these effects. Remember that the **Delay Repeats (Tap + Bass knob)** and **Delay Level (Tap + Middle knob)** controls are also available with all these effects. (Details are in the Tap (HOLD) description in Chapter 2).

Delay/Compressor - Tweak controls Compression Ratio.

Delay/Tremolo - Tweak automatically controls both speed and depth to give you a variety of Tremolos. If you want more fine control of the Tremolo, use the Tremolo (without Delay) effect setting.

Delay/Chorus 1 - Tweak spins you through a variety of chorus settings.

Delay/Chorus 2 - Tweak spins you through a variety of chorus settings.

Delay/Flanger 1 - Tweak spins you through a variety of flanger settings.

Delay/Flanger 2 - Tweak spins you through a variety of flanger settings.

Delay/Swell - Well, here's one we haven't explained before. Swell is like an automatic volume pedal that will give you a very even volume swell with each note or chord you play. **Effect Tweak** controls the attack speed of the volume swell. You can, of course, achieve a similar effect by using a Line 6 Floor Board with POD, and riding its volume pedal, by using a MIDI pedal or other controller, or turning the volume knob on your guitar with your the heel of your picking hand. Or spin the **Effects** knob here and have POD do the job for you!