MESA/BOOGIE®

Mark IV B

Mark IV

FRONT PANEL

RHYTHM 1		
Control Function	**Type**	**Mesa Part#**
Gain	Pot	591842
	Knob	408105
Treble	Pot	593148
	Knob	409124
Bass	Pot	593148
	Knob	409124
Middle	Pot	592378
	Knob	409124
Presence	Pot	593792
	Knob	408105
Master	Pot	593150
	Knob	409124
R1 LED	LED	395540

RHYTHM 2		
Control Function	**Type**	**Mesa Part#**
Gain	Pot	591842
	Knob	408105
Treble	Pot	593148
	Knob	409124
Bass	Shared w/ R1	
Middle	Shared w/ R1	
Presence	Pot	596821
	Knob	408105
Master	Pot	593150
	Knob	409124
R2 LED	LED	395530

LEAD		
Control Function	**Type**	**Mesa Part#**
Gain	Pot	591842
	Knob	408105
Treble	Pot	592149
	Knob	409124
Bass	Pot	593148
	Knob	409124
Middle	Pot	592378
	Knob	409124
Lead Drive	Pot	591842
	Knob	408105
Presence	Pot	596821
	Knob	408105
Master	Pot	593150
	Knob	409124
Lead LED	LED	395520

MISC PARTS		
Control Function	**Type**	**Mesa Part#**
Input	Jack	610120
Graphic EQ		
All 5 Bands	Pot	588536
(New Style)	Knob	408550
**original style knob no longer available		
Output	Pot	596821
	Knob	408115
EQ LED	LED	395510
Loop LED	LED	395500
Standby	Switch	601073
Power	Switch	601073
Pilot Light	Light	703130
(Med Chas Only)		

REAR PANEL

Mark IV

MISC PARTS		
Control Function	**Type**	**Mesa Part#**
Jacks		
Rev Ftsw	Jack	610111
Satellite EQ	" "	612111
Satellite Send	" "	610111
FX Send	" "	612112
FX Return (L)	" "	610111
FX Return (R)	" "	610111
Speaker Outs(3)	" "	618100
External Switch(6)	" "	618100
Record Out		
	Pot	592378
	Knob	409124
	Jack	618100
Slave Out		
	Pot	592738
	Knob	409124
	Jack	618100

MISC PARTS		
Control Function	**Type**	**Mesa Part#**
Switches		
Graphic EQ	Switch	600116
FX ON/Swtch	" "	600115
Auto Assign(2)	" "	600116
Triode/Pentode	" "	600117
Simul/Class A	" "	600114
Harm/Mid Gain	" "	600114
Channel Select	Rotary Sw	608226
	Knob	408121
Fuse Holder		
Domestic	Cap/Holder	790347
	Fuse	790403
Export	Cap/Holder	790346
	Fuse	795200
AC Receptacle	Jack	613713
Foot Switch	Jack	620414

Mark IV

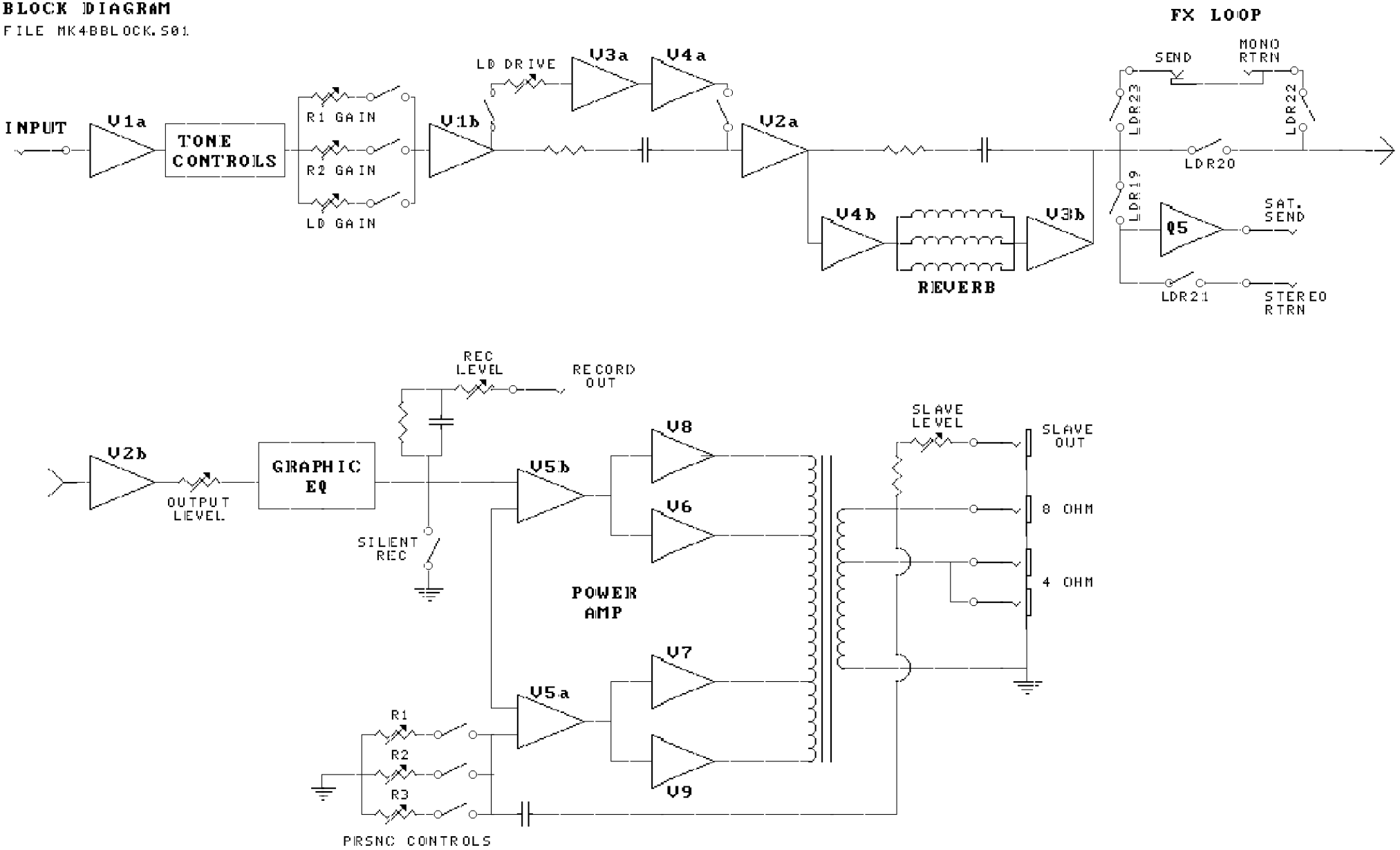
MISC PARTS		
Control Function	**Type**	**Mesa Part#**
Jacks		
Rev Ftsw	Jack	610111
Satellite EQ	" "	612111
Satellite Send	" "	610111
FX Send	" "	612112
FX Return (L)	" "	610111
FX Return (R)	" "	610111
Speaker Outs(3)	" "	618100
External Switch(6)	" "	618100
Record Out		
	Pot	592378
	Knob	409124
	Jack	618100
Slave Out		
	Pot	592738
	Knob	409124
	Jack	618100

MISC PARTS		
Control Function	**Type**	**Mesa Part#**
Switches		
Graphic EQ	Switch	600116
FX ON/Swtch	" "	600115
Auto Assign(2)	" "	600116
Triode/Pentode	" "	600117
Simul/Class A	" "	600114
Harm/Mid Gain	" "	600114
Channel Select	Rotary Sw	608226
	Knob	408121
Fuse Holder		
Domestic	Cap/Holder	790347
	Fuse	790403
Export	Cap/Holder	790346
	Fuse	795200
AC Receptacle	Jack	613713
Foot Switch	Jack	620414

MESA—BOOGIE
MARK IVB

BLOCK DIAGRAM

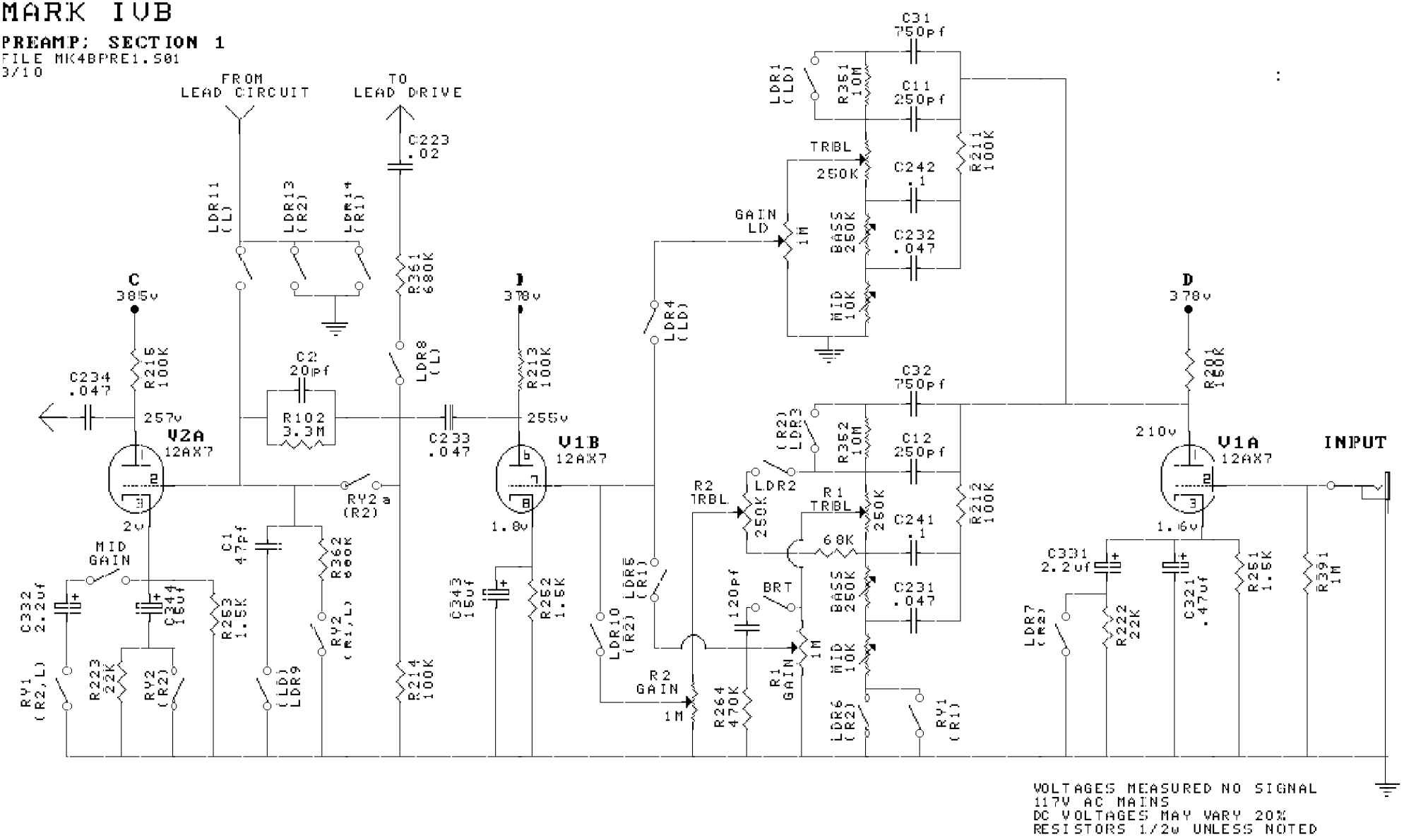
FILE MK4BBLOCK.S01



MESA-BOOGIE
MARK IVB

PREAMP: SECTION 1

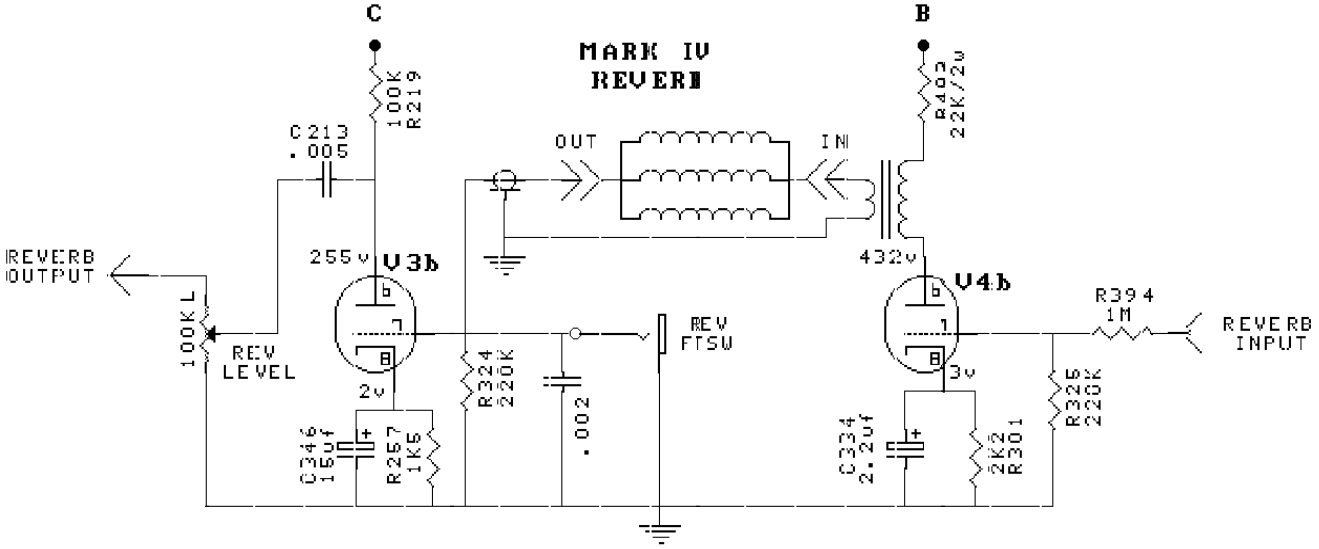
FILE MK4BPRE1.S01
3/10

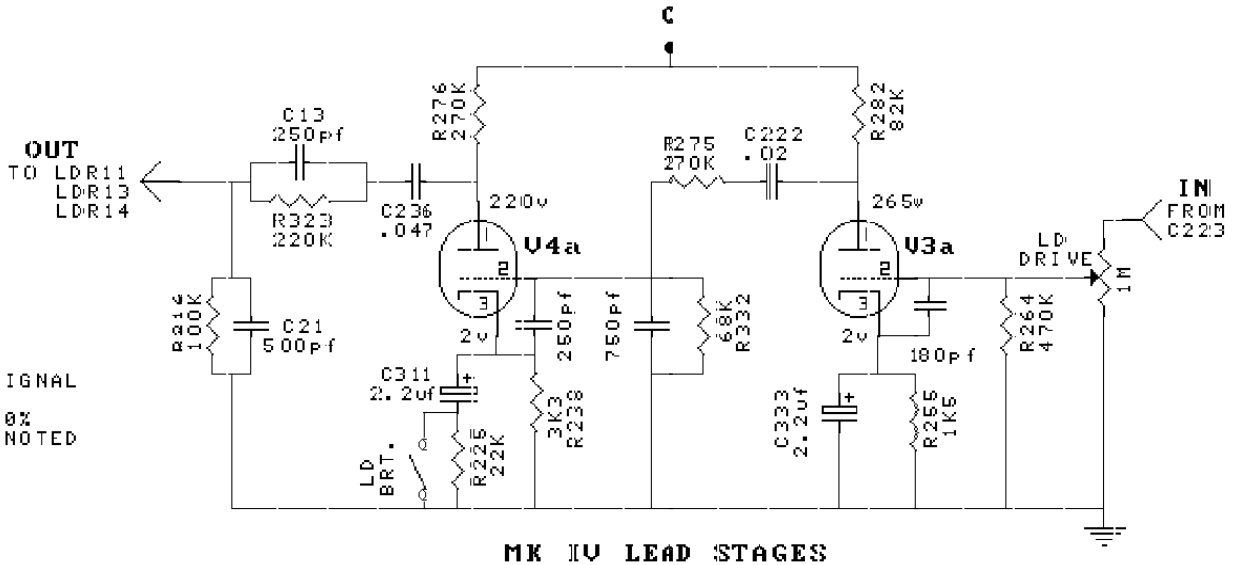


VOLTAGES MEASURED NO SIGNAL
117V AC MAINS
DC VOLTAGES MAY VARY 20%
RESISTORS 1/2w UNLESS NOTED

MESA—BOOGIE
MARK IVB

PREAMP PART TWO
FILE MK4BPRE2.S01





VOLTAGES MEASURED NO SIGNAL
117v AC MAINS
DC VOLTAGES MAY VARY 20%
RESISTORS 1/2w UNLESS NOTED

MK IV LEAD STAGES

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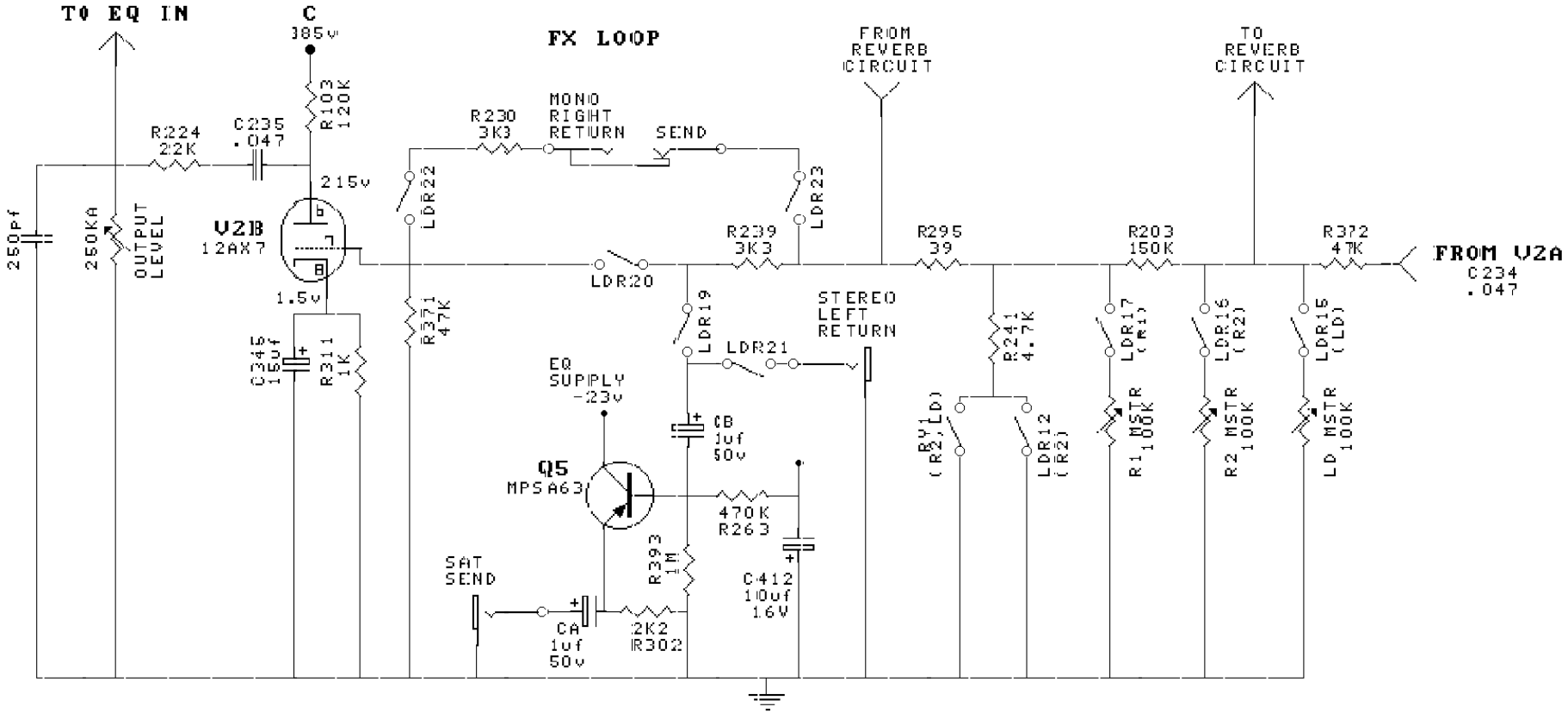
PREAMP PART 3

FILE MK4BPRE3.S01

	LOOP ON	LOOP OFF
LDR18	OFF	LDR19 ON
LDR20	OFF	LDR20 ON
LDR21	ON	LDR21 OFF
LDR22	ON	LDR22 OFF
LDR23	ON	LDR23 OFF



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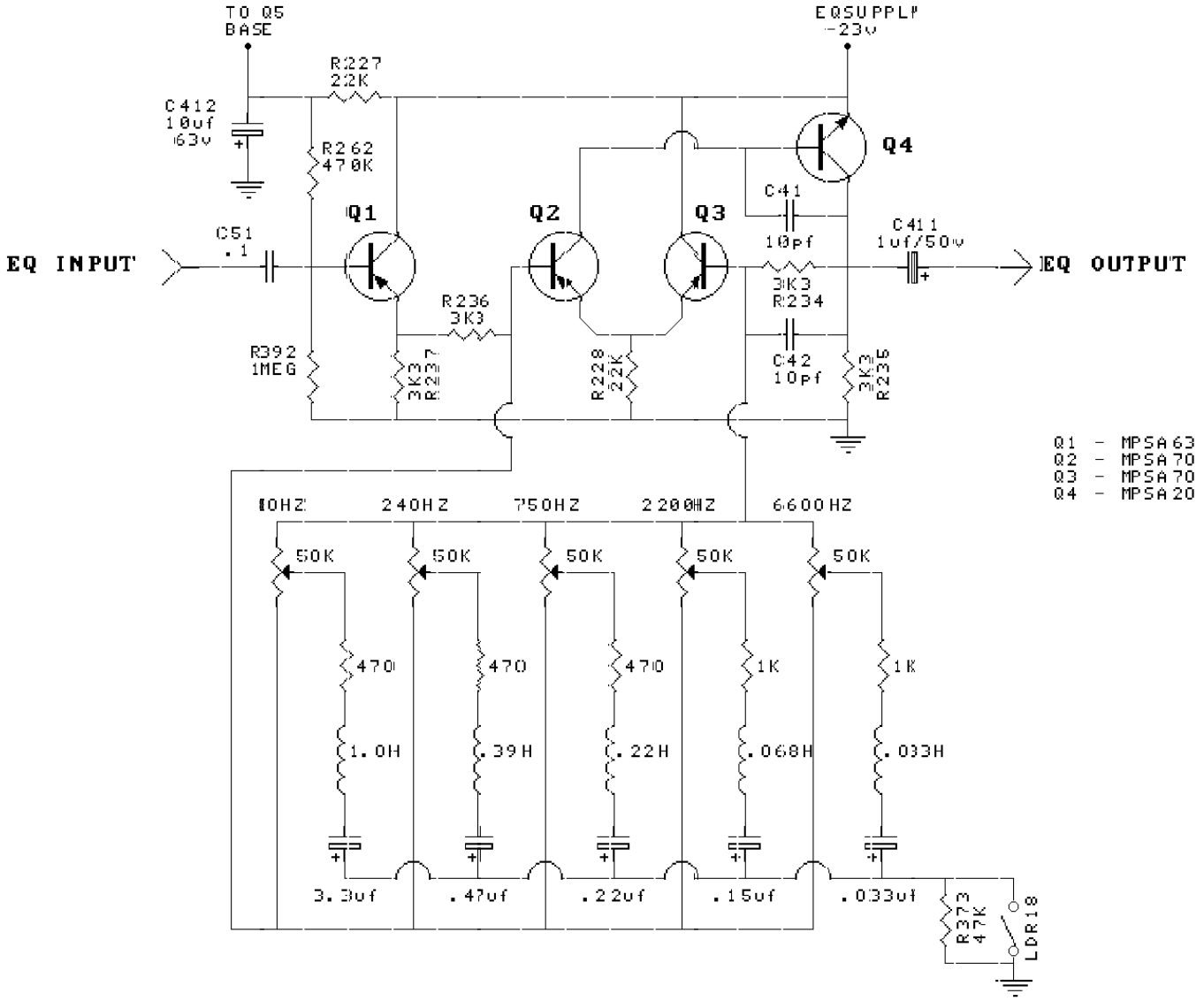
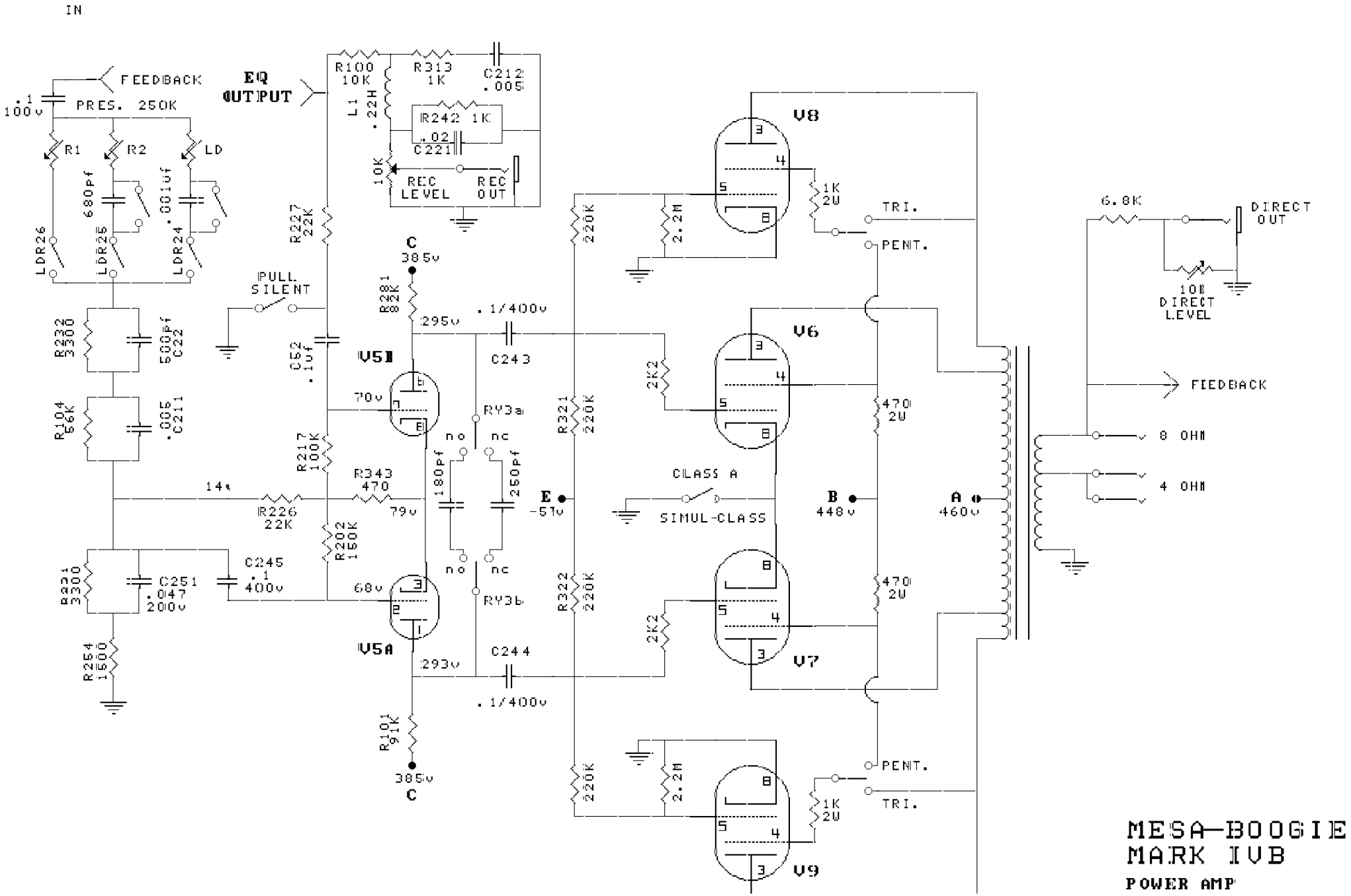
GRAPHIC EQ

FILE MK4BEQ.S#1

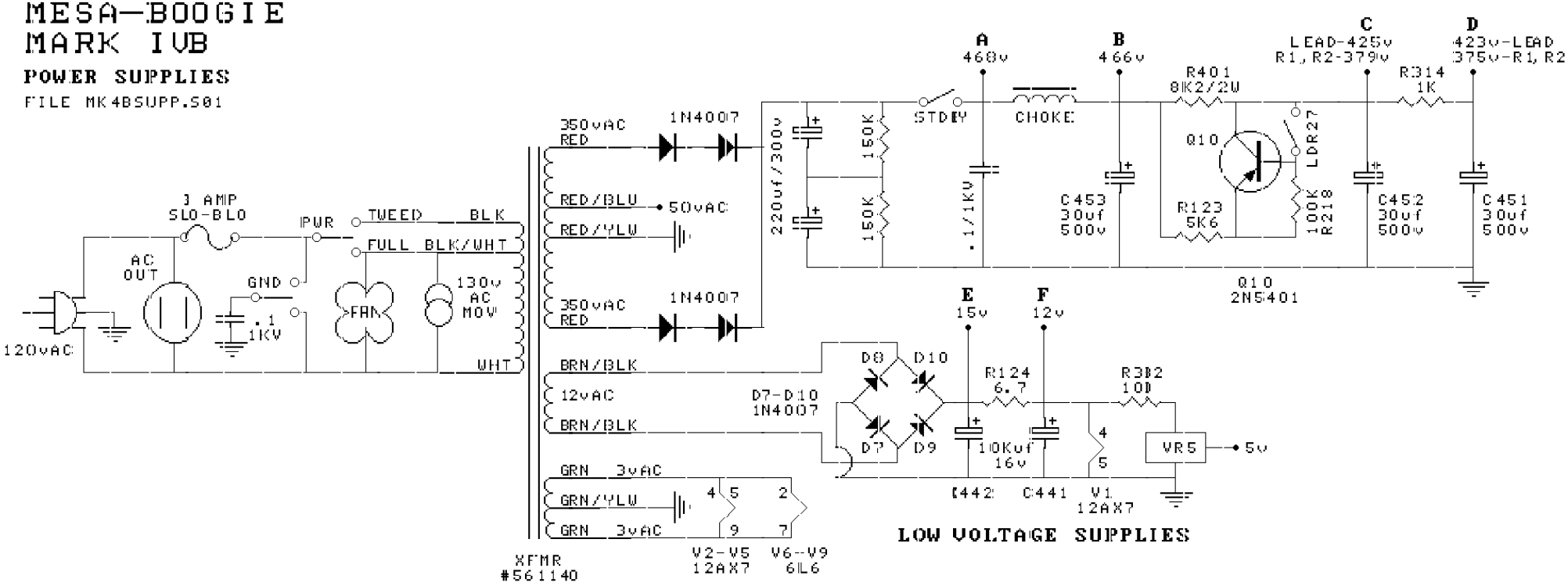



IN
FEEDBACK
.1
100v
PRES. 250K
R1
R2
LD
680pf
.001uf
LDR26
LDR25
LDR24
R232
3300
500pf
C22
R104
56K
.005
C211
R221
3300
C251
.047
200v
C245
.1
400v
R254
1500
EQ
OUTPUT
R100
10K
R313
1K
C212
.005
L1
.22H
R242 1K
.02
C221
10K
REC
LEVEL
REC
OUT
R227
22K
PULL
SILENT
C52
.1uf
C
385v
R281
82K
295v
.1/400v
C243
V5B
70v
RV3a
no
nc
180pf
250pf
R217
100K
R343
470
14v
R226
22K
79v
R202
150K
68v
V5A
RV3b
293v
C244
.1/400v
R101
91K
385v
C
E
-51v
R321
220K
R322
220K
220K
220K
2K2
2K2
V8
V6
V7
V9
2.2M
2.2M
1K
2W
1K
2W
470
2W
470
2W
TRI.
PENT.
PENT.
TRI.
CLASS A
SIMUL-CLASS
B
448v
A
460v
6.8K
DIRECT
OUT
10K
DIRECT
LEVEL
FEEDBACK
8 OHM
4 OHM
MESA—BOOGIE
MARK IVB
POWER AMP

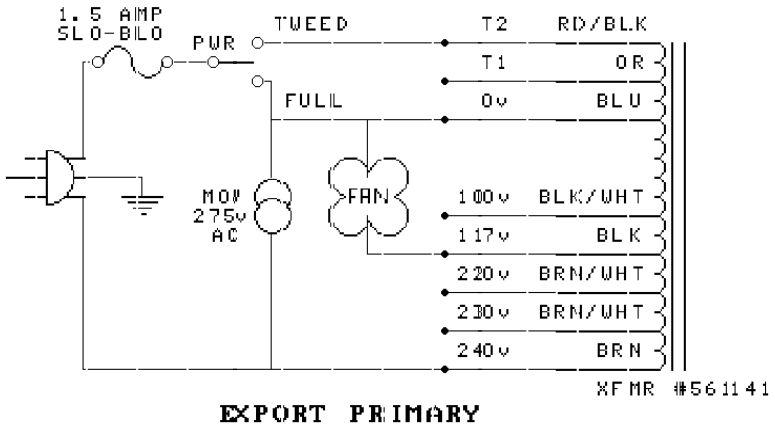
MESA—BOOGIE
MARK IVB

POWER SUPPLIES

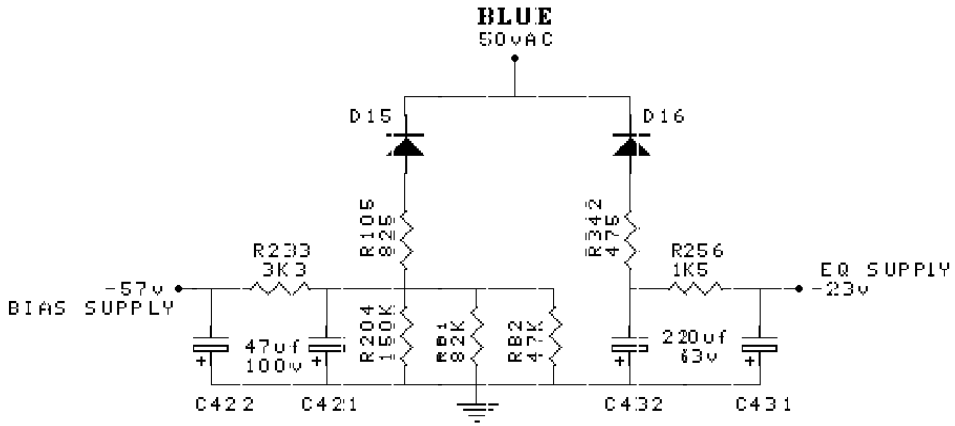
FILE MK4BSUPP.S01



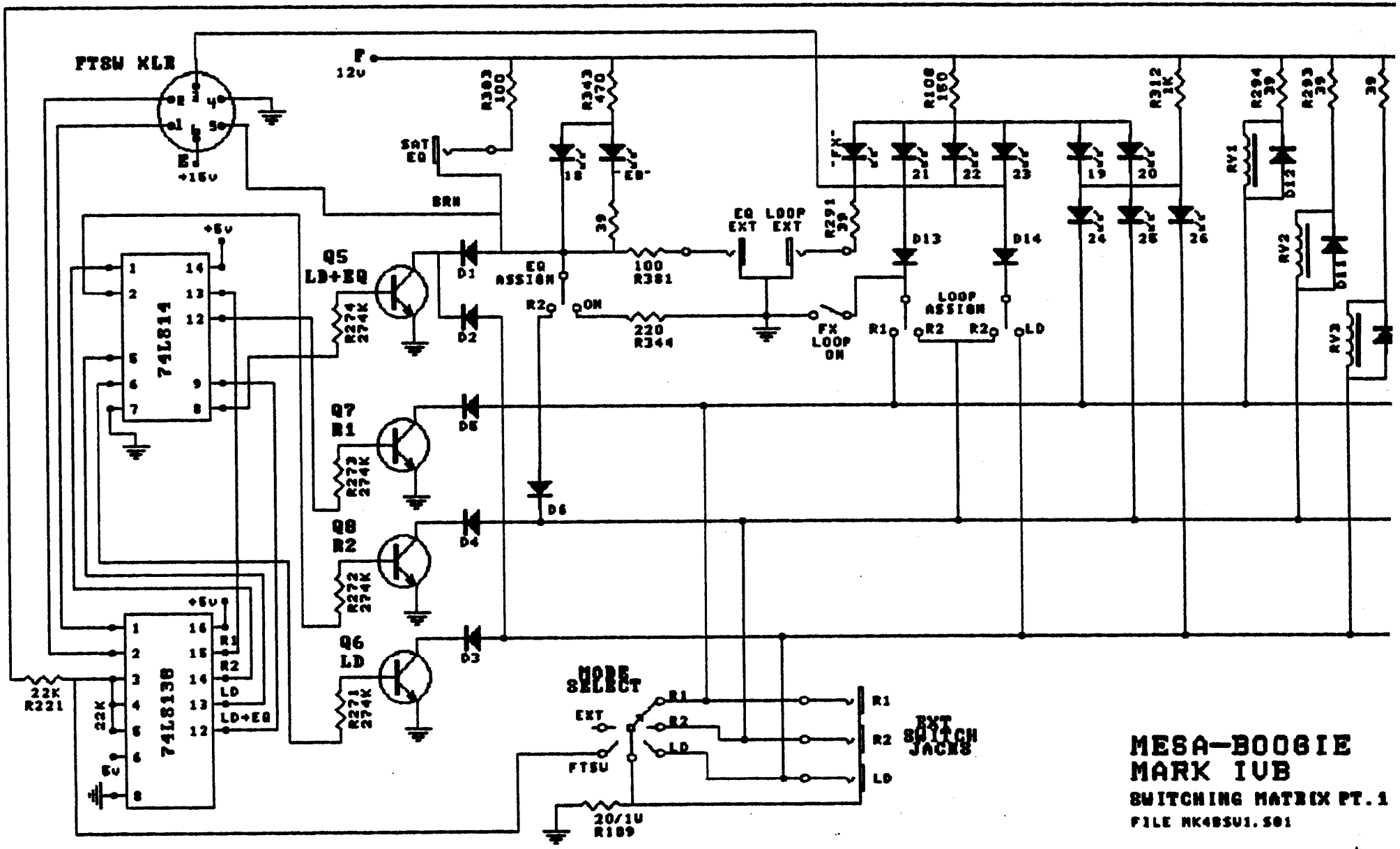
LOW VOLTAGE SUPPLIES

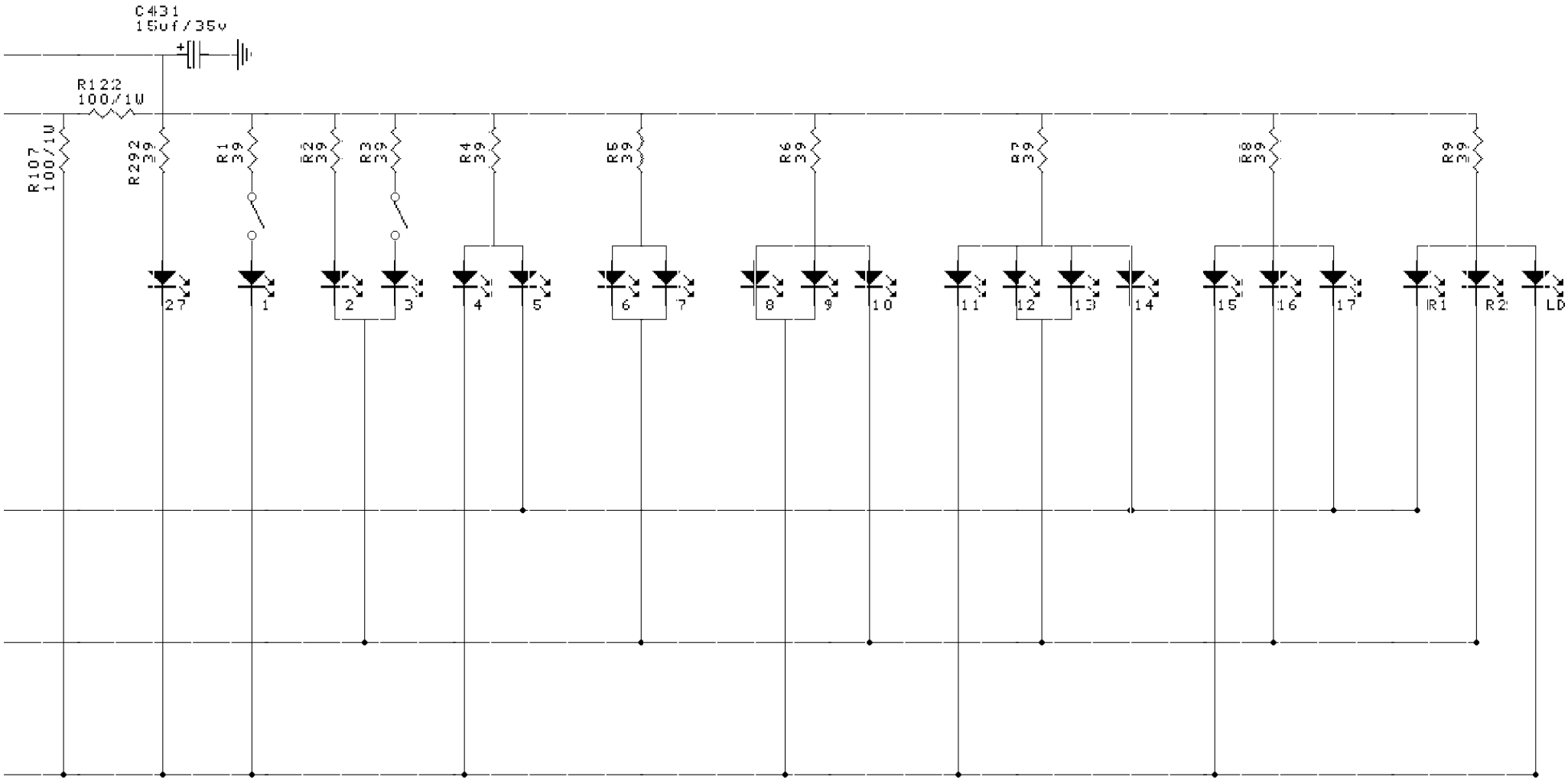


EXPORT PRIMARY



LOW V NEGATIVE SUPPLIES

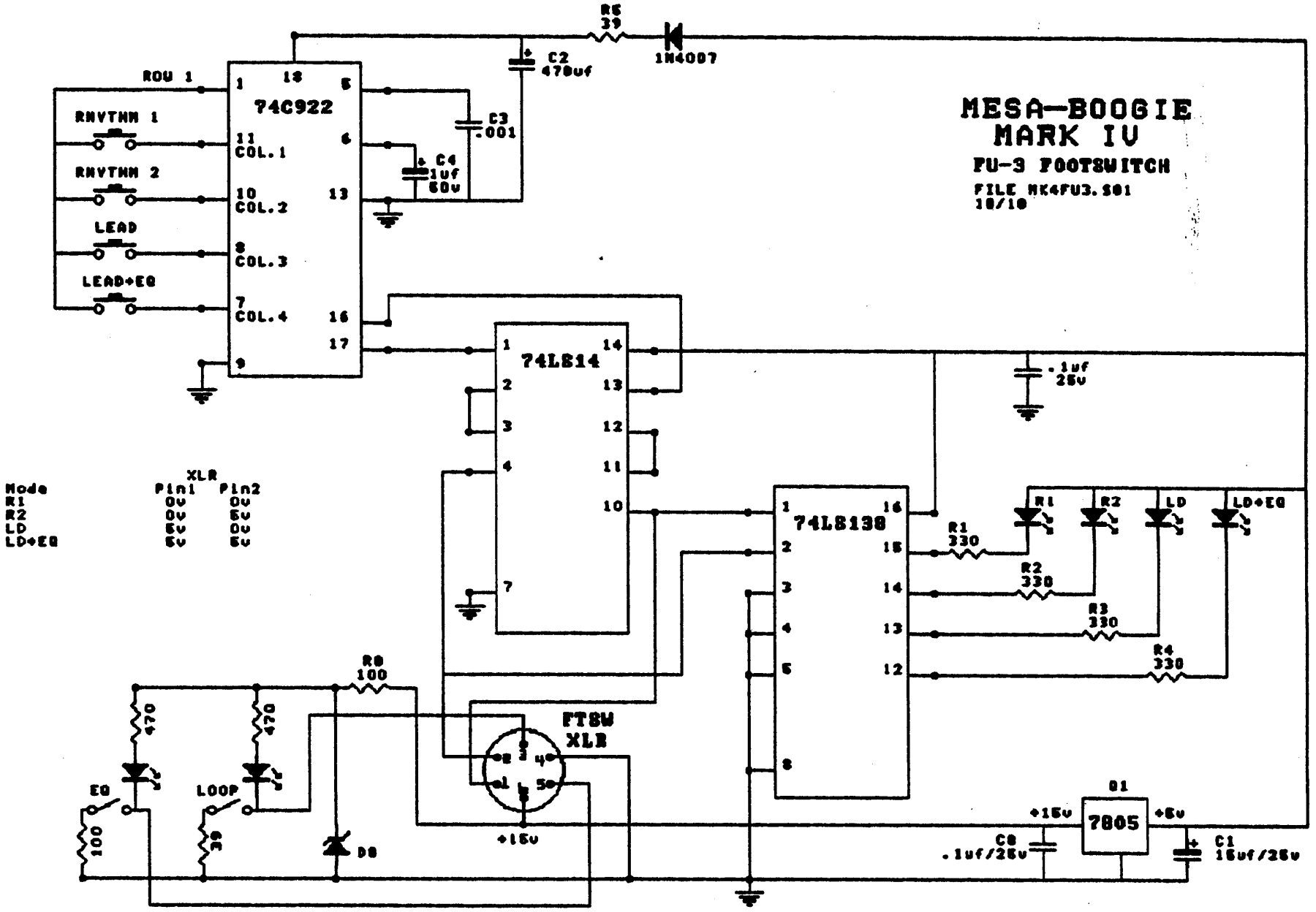

FTSW XLR
+15V
+12V
SAT EQ
BRN
+5V
74LS14
74LS138
Q5 LD+EQ
Q7 R1
Q8 R2
Q6 LD
R274 274K
R273 274K
R272 274K
R271 274K
R221 22K
R383 100
R343 470
R108 150
R212 1K
R294 39
R293 39
39
18
19
20
21
22
23
24
25
26
D1
D2
D3
D4
D5
D6
D13
D14
D11
D12
EQ ASSIGN
R2
ON
100 R381
220 R344
EQ EXT
LOOP EXT
R291 39
FX LOOP ON
LOOP ASSIGN
R1
R2
LD
RV1
RV2
RV3
MODE SELECT
EXT
FTSU
20/1U R189
EXT SWITCH JACKS
LD+EQ
MESA-BOOGIE
MARK IVB
SWITCHING MATRIX PT. 1
FILE MK4BSW1.S01
7/9



MESA-BOOGIE
MARK IVB

SWITCHING MATRIX PT2

FILE MK4BSW2.S01


MESA-BOOGIE
MARK IV
FU-3 FOOTSWITCH
FILE MK4FU3.S01
10/10
R6
39
1N4007
C2
470uf
ROW 1
74C922
RHYTHM 1
RHYTHM 2
LEAD
LEAD+EQ
COL.1
COL.2
COL.3
COL.4
C3
.001
C4
1uf
50v
74LS14
.1uf
25v
74LS138
R1
330
R2
330
R3
330
R4
330
R1
R2
LD
LD+EQ
Mode
R1
R2
LD
LD+EQ
XLR
Pin1
Pin2
0v
0v
5v
5v
0v
5v
0v
5v
R8
100
R7
470
R7
470
EQ
LOOP
100
68
D8
FTSW
XLR
+15v
U1
7805
+15v
+5v
C8
.1uf/25v
C1
16uf/25v

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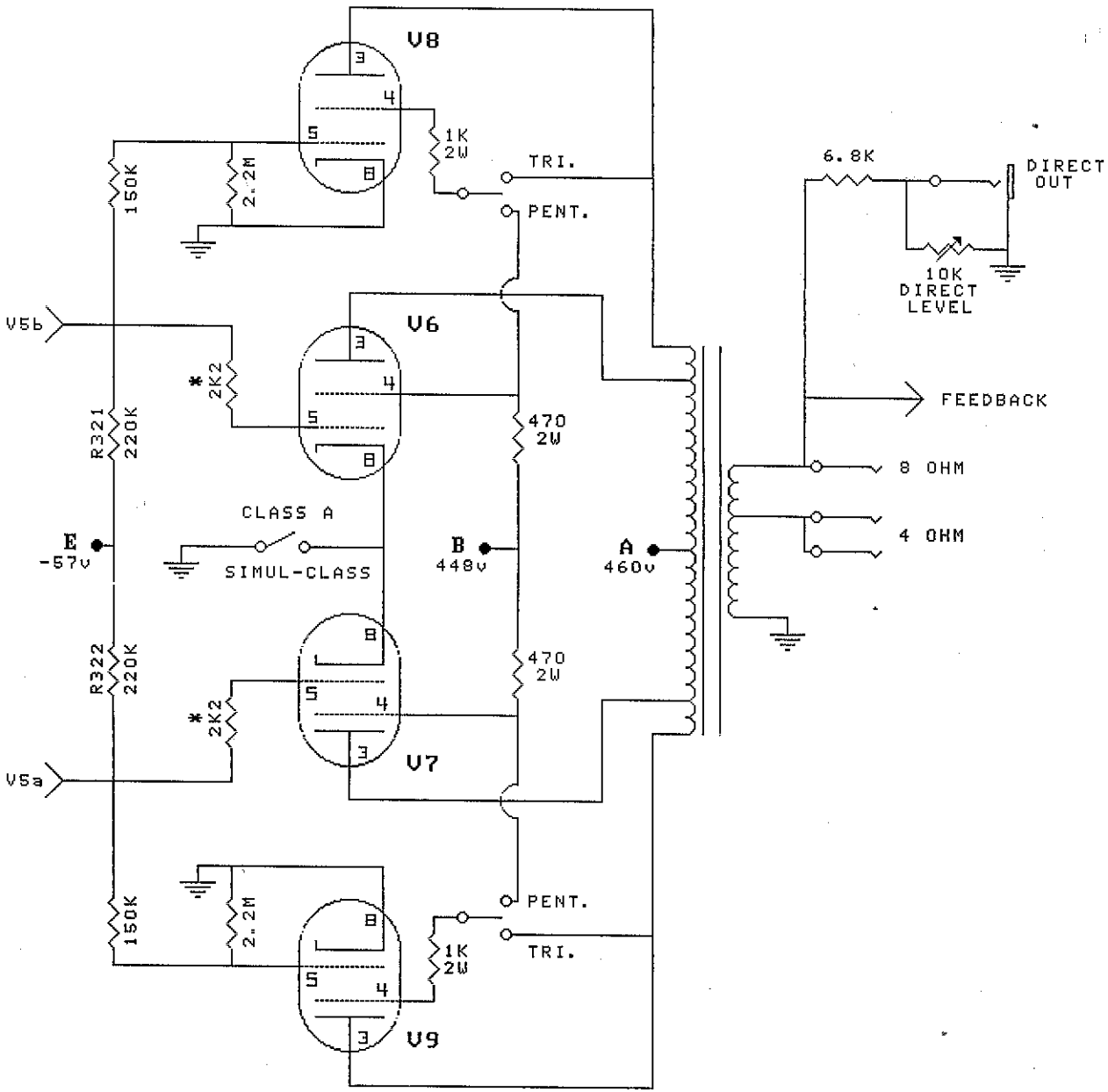
MESA/BOOGIE®

MARK IVB

POWER AMP STABILIZATION MOD

Cures "barking" noise ("gack") experienced with some 6L6 tubes.

1. Remove existing buss wire connection between pin 5 of inner 6L6 sockets and terminal towers.
2. Install 2K2 series resistors *
3. Test for stability, all modes.



r0A

Mark IV “FU3” Foot Controller - Test Procedure

Purpose: to determine if an FU3 controller is functioning properly, independently of the Mark IV amp.

Tools Needed: voltmeter, two clip leads, and a 9-volt battery.

1. Loosen two strain relief screws on FU3 plug, loosen retaining screw on cover, and slide plug cover back to expose inner connections.

2. Connect 9V battery leads as follows: “plus” to pin 6, “minus“ to pin 4. (At this point, the FU3 should light, and display modes as selected).

3. Connect voltmeter as follows: “minus” to pin 4, “plus” to pins 1 and 2 alternately.

4. If FU3 is functioning properly, voltages on pins 1 and 2 (referenced to pin 4 will be:

Mode selected	Pin 1	Pin 2
R1	0 volts	0 volts
R2	5 volts	0 volts
Lead	0 volts	5 volts
Lead + EQ	5 volts	5 volts