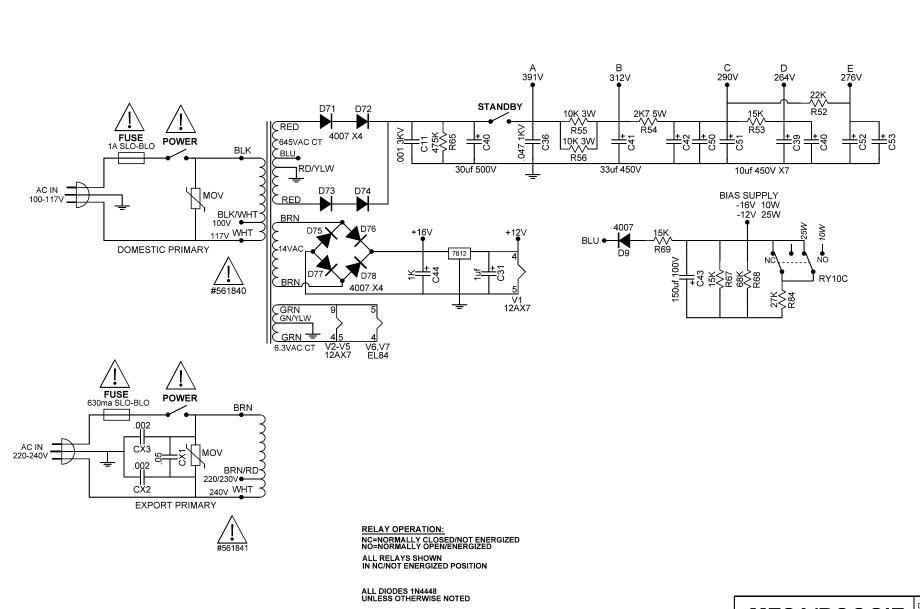
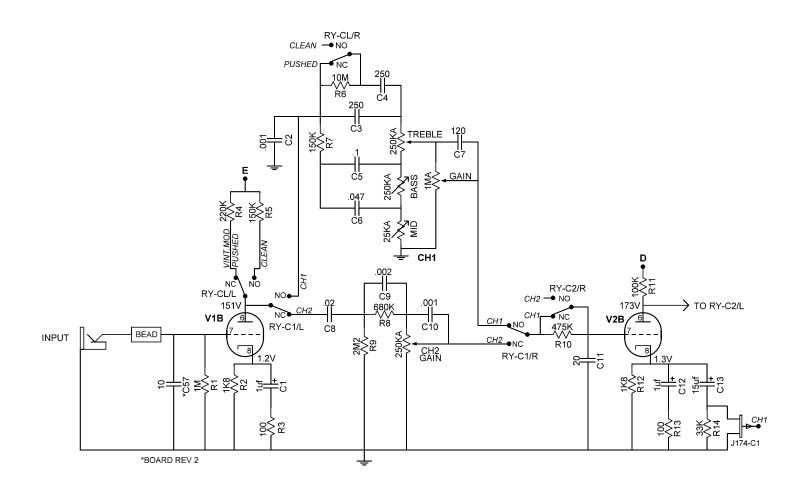


	MESA/BOOCIE	DATE: 1-7-2013
Causard under an a armour	MESA/BOOGIE	PAGE: 1 OF 6
Covered under one or more of the following patents:	MINI RECTIFIER 25	DRAWN BY: JOHN M
5,168,438; 5,208,548; 5,559,469; 5,793,252; 6,522,752; 6,621,907; 6,724,897; 7,173,488;	BLOCK DIAGRAM	BOARD REV: REVS 1,2
7,193,458; 7,412,064; 7,602,927	COPYRIGHT 2011 MESA BOOGIE, LTD.	FILE NAME: MiniRec25



ALL VOLTAGES MEASURED WITH 117VAC IN, CH1, CLEAN MODE, 25W SETTING EXCEPT AS NOTED

DATE: 1-7-2013 **MESA/BOOGIE** PAGE: 2 OF 6 Covered under one or more of the following patents: DRAWN BY: JOHN M MINI RECTIFIER 25 5,168,438; 5,208,548; 5,559,469; 5,793,252; BOARD REV: REVS 1,2 **POWER SUPPLIES** 6,522,752; 6,621,907; 6,724,897; 7,173,488; 7,193,458; 7,412,064; 7,602,927 FILE NAME: MiniRec25 COPYRIGHT 2011 MESA BOOGIE, LTD.

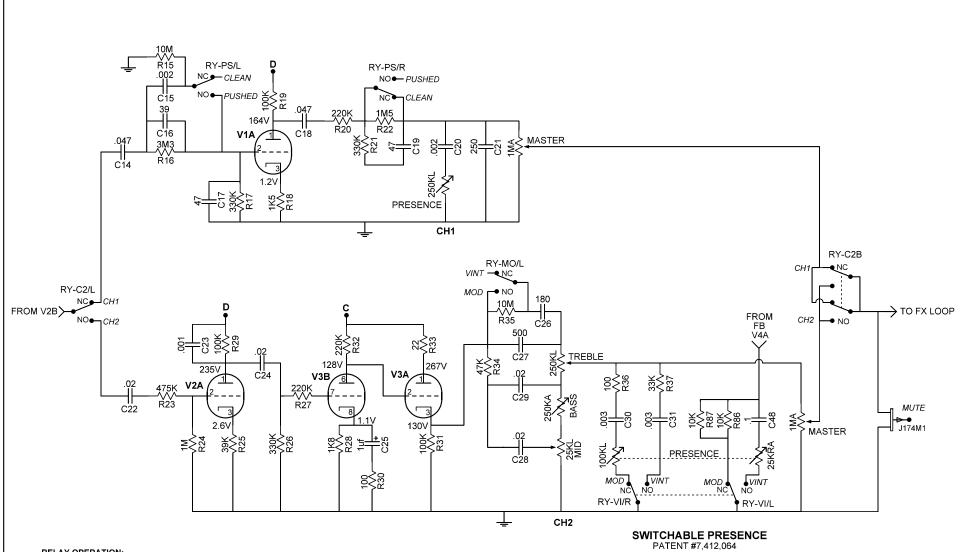


RELAY OPERATION:
NC=NORMALLY CLOSED/NOT ENERGIZED
NO=NORMALLY OPEN/ENERGIZED
ALL RELAYS SHOWN
IN NC/NOT ENERGIZED POSITION

ALL DIODES 1N4448 UNLESS OTHERWISE NOTED

ALL VOLTAGES MEASURED WITH 117VAC IN, CH1, CLEAN MODE, 25W SETTING EXCEPT AS NOTED

	MECA/DOOCIE	DATE: 1-7-2013
	MESA/BOOGIE	PAGE: 3 OF 6
Covered under one or more of the following patents:	MINI RECTIFIER 25	DRAWN BY: JOHN M
5,168,438; 5,208,548; 5,559,469; 5,793,252; 6,522,752; 6,621,907; 6,724,897; 7,173,488;	PREAMP PART 1	BOARD REV: REVS 1,2
7,193,458; 7,412,064; 7,602,927	COPYRIGHT 2011 MESA BOOGIE, LTD.	FILE NAME: MiniRec25

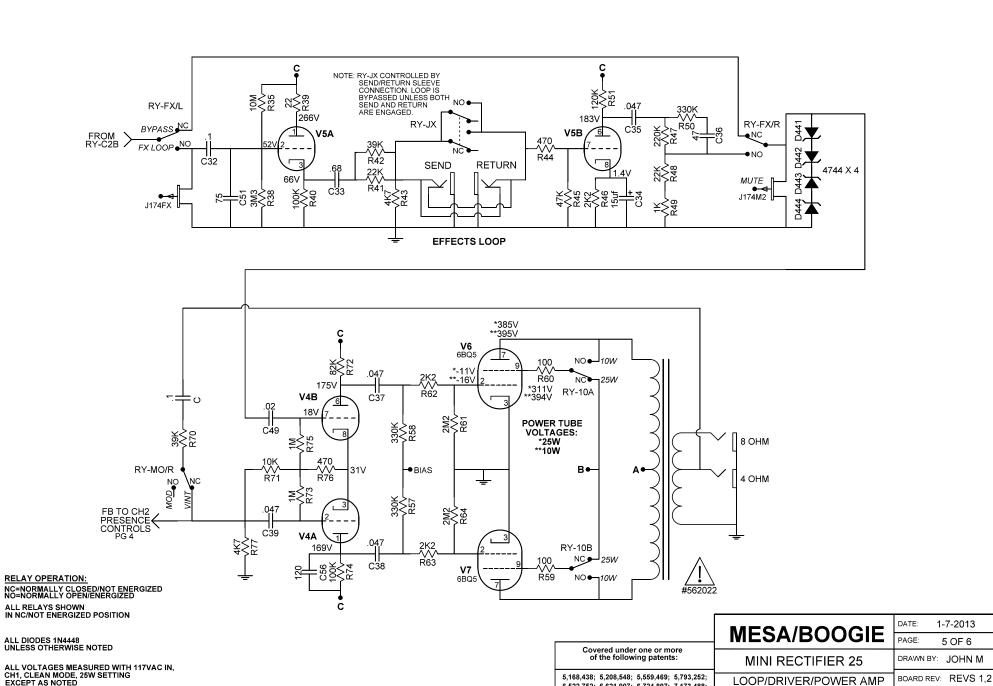


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	MECA/DOOCIE	DATE: 1-7-2013
Coursed under one comment	MESA/BOOGIE	PAGE: 4 OF 6
Covered under one or more of the following patents:	MINI RECTIFIER 25	DRAWN BY: JOHN M
5,168,438; 5,208,548; 5,559,469; 5,793,252; 6,522,752; 6,621,907; 6,724,897; 7,173,488;	PREAMP PART 2	BOARD REV: REVS 1,2
7,193,458; 7,412,064; 7,602,927	COPYRIGHT 2011 MESA BOOGIE, LTD.	FILE NAME: MiniRec25

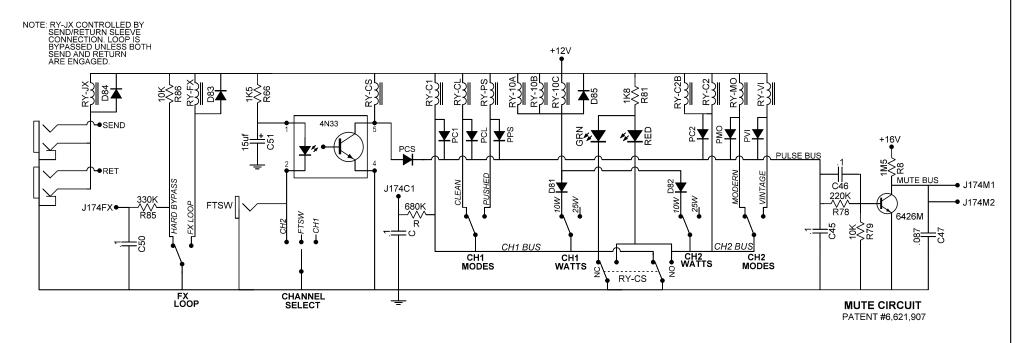


6,522,752; 6,621,907; 6,724,897; 7,173,488; 7,193,458; 7,412,064; 7,602,927

FILE NAME: MiniRec25

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EXCEPT AS NOTED



#### RELAY FUNCTIONS:

RY-CS: CHANNEL BUS

CH1 TONE/CH2 GAIN SELECT V2B GRID/ MASTER SELECT

RY-CS: RY-C1: RY-C2: RY-C2B: RY-CL: RY-PS: RY-VI: RY-MO: RY-10A: V1A PLATE/CH1 TREBLE CAP V1A GRID/R22 BYPASS

CH2 PRESENCE FEEDBACK/CH2 TREBLE CAP

RY-10B: RY-10C: RY-FX: V7 SCREEN BIAS 10W MODE LOOP CIRCUIT BYPASS

RY-JX: SEND/RETURN JACK BYPASS

### FET FUNCTIONS:

J174M1: MASTER MUTE

J174M1: DRIVER INPUT MUTE
J174FX: LOOP CIRCUIT BYPASS MUTE
J174C1: V2B CATHODE CH1

### **RELAY OPERATION:**

NC=NORMALLY CLOSED/NOT ENERGIZED NO=NORMALLY OPEN/ENERGIZED

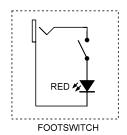
ALL RELAYS SHOWN
IN NC/NOT ENERGIZED POSITION

**ALL DIODES 1N4448** 

UNLESS OTHERWISE NOTED

ALL VOLTAGES MEASURED WITH 117VAC IN, CH1, CLEAN MODE, 25W SETTING

**EXCEPT AS NOTED** 



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Covered under one or more of the following patents:	MINI RECTIFIER 25	DRAWN BY: JOHN M
5,168,438; 5,208,548; 5,559,469; 5,793,252; 6,522,752; 6,621,907; 6,724,897; 7,173,488;	SWITCH MATRIX	BOARD REV: REVS 1,2
7,193,458; 7,412,064; 7,602,927	COPYRIGHT 2011 MESA BOOGIE, LTD.	FILE NAME: MiniRec25

# April 2013 Mesa/Boogie Tech Bulletin Mini Rectifier 25 10 Watt Dropout Update

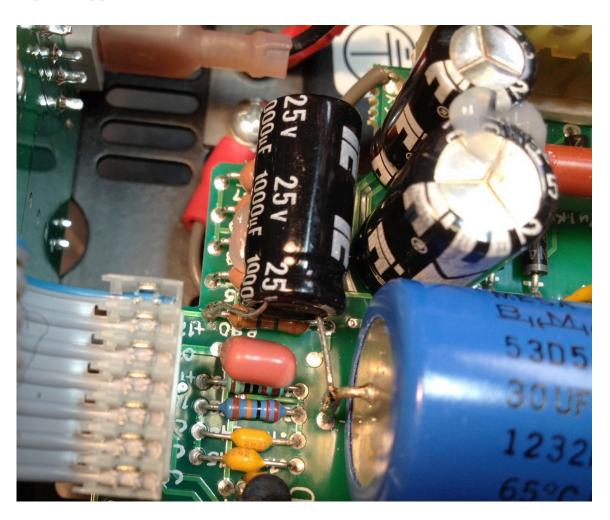
Amplifiers affected: Serial #4511 and below

**Symptom:** Amp will drop to very low volume levels when switched to the 10 Watt mode in either channel.

**Cause:** Extra current draw from 10 Watt mode causes mute circuit to engage. This can be exaggerated by low line levels.

**Fix:** Add a 1kuf 25V electrolytic filter cap to the +16V supply.

Connect filter cap as shown, with the negative end connecting to ground at the 30uf 500V filter cap and the positive end connecting to the +16V supply at the forward end of R80 (1M5). Add a small amount of silicone under the cap for support.



# October 2013 Mesa/Boogie Tech Bulletin Mini-Rec Dropout Update

Amplifiers affected: Serial #5510 and below.

**Symptom:** Audio signal will drop out intermittently in Ch1.

Fix: Add a .1uf 50V cap across the Ch2 LED. Mesa part #526013.

Install cap as shown.

