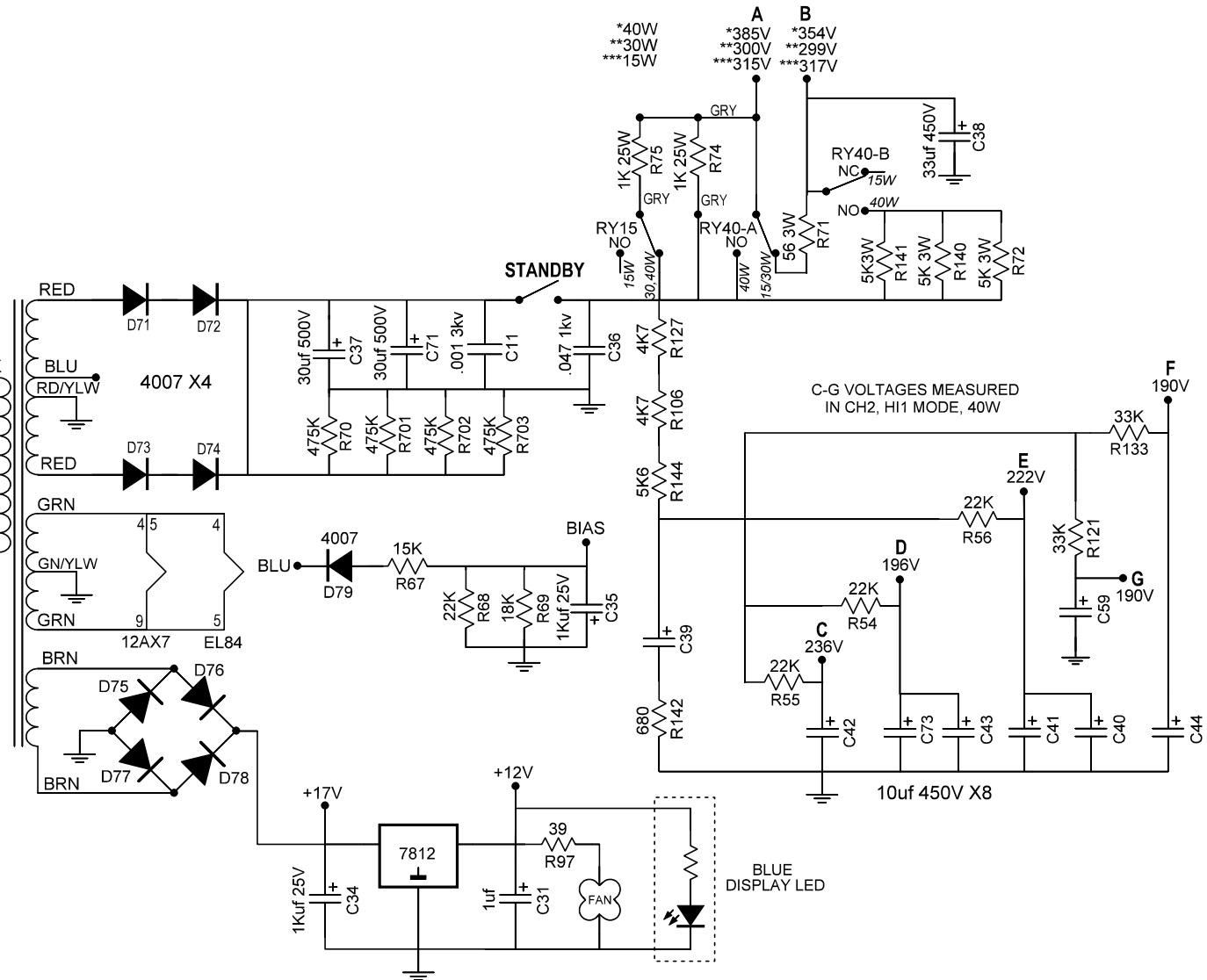
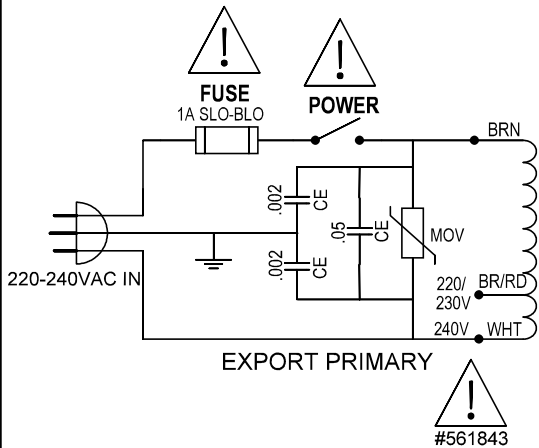
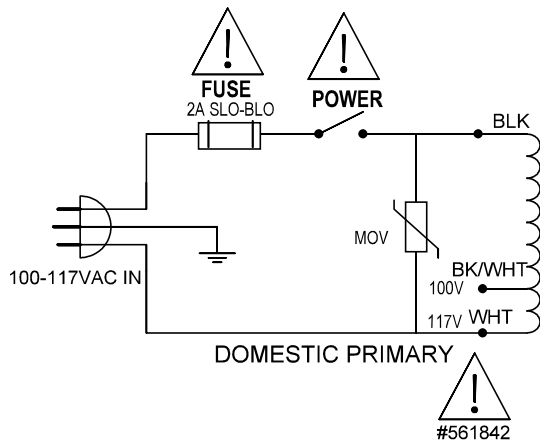


EFFECTS/REVERB CIRCUIT

Covered under one or more of the following patents:  
 5,168,438; 5,208,548; 5,559,469; 5,793,252;  
 6,522,752; 6,621,907; 6,724,897; 7,173,488;  
 7,193,458; 7,412,064; 7,602,927

<b>MESA/BOOGIE</b>	DATE: 2-17-2011
	PAGE: 1 OF 8
	DRAWN BY: JOHN M.
	BOARD REV: REV 1A
TRANSATLANTIC TA30	
BLOCK DIAGRAM	
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FILE NAME: TA30	



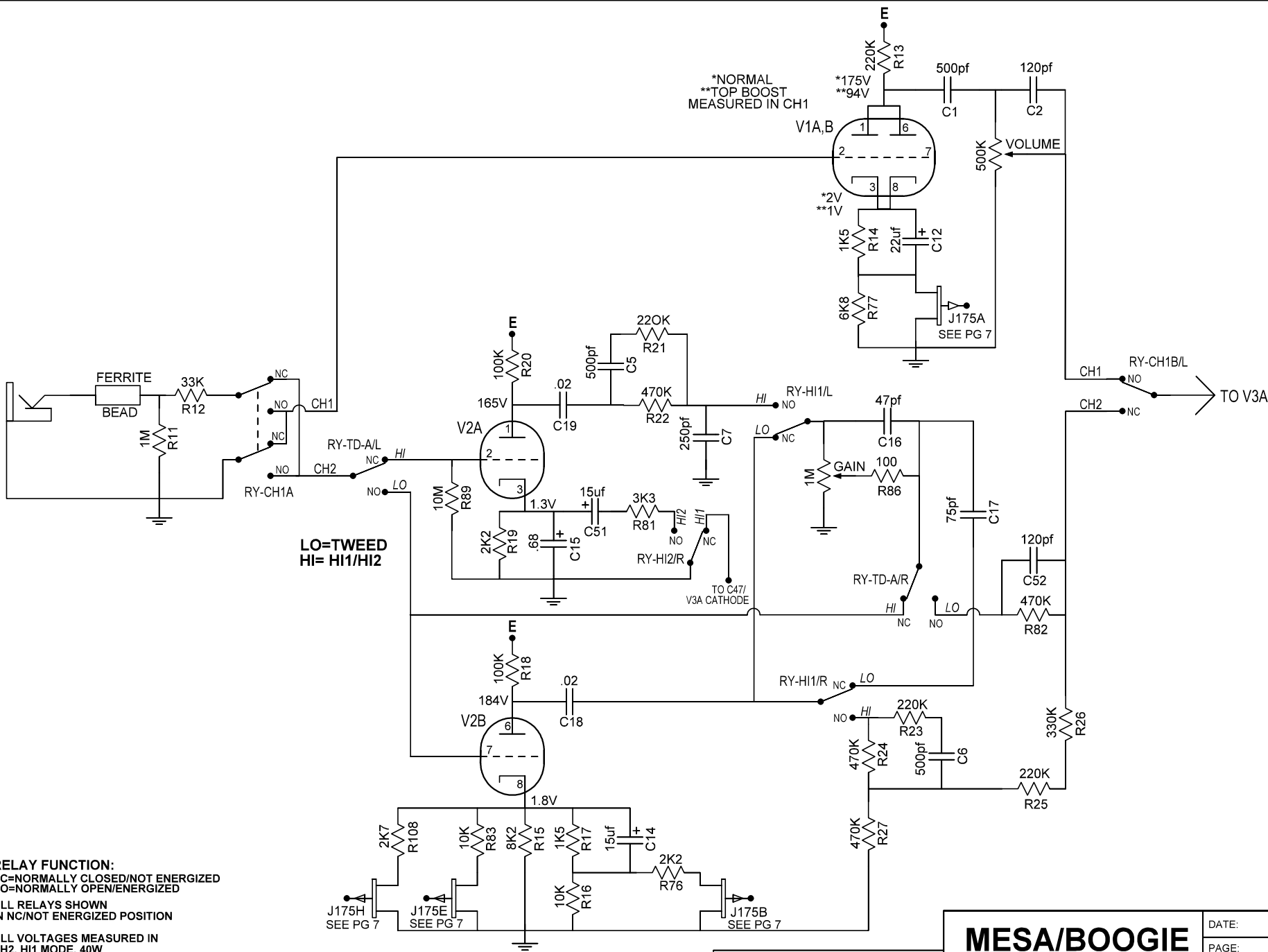
RELAY FUNCTION:  
 NC-NORMALLY CLOSED/NOT ENERGIZED  
 NO-NORMALLY OPEN/ENERGIZED

ALL RELAYS SHOWN  
 IN NC/NOT ENERGIZED POSITION

ALL DIODES 1N4448  
 UNLESS OTHERWISE NOTED

Covered under one or more  
 of the following patents:  
 5,168,438; 5,208,548; 5,559,469; 5,793,252;  
 6,522,752; 6,621,907; 6,724,897; 7,173,488;  
 7,193,458; 7,412,064; 7,602,927

<b>MESA/BOOGIE</b>	DATE: 2-17-2011
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	BOARD REV: REV 1A
POWER SUPPLIES	FILE NAME: TA30
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\*NORMAL  
\*\*TOP BOOST  
MEASURED IN CH1

LO=TWEEED  
HI= HI1/HI2

**RELAY FUNCTION:**  
NC=NORMALLY CLOSED/NOT ENERGIZED  
NO=NORMALLY OPEN/ENERGIZED

ALL RELAYS SHOWN  
IN NC/NOT ENERGIZED POSITION

ALL VOLTAGES MEASURED IN  
CH2, HI1 MODE, 40W  
EXCEPT AS NOTED

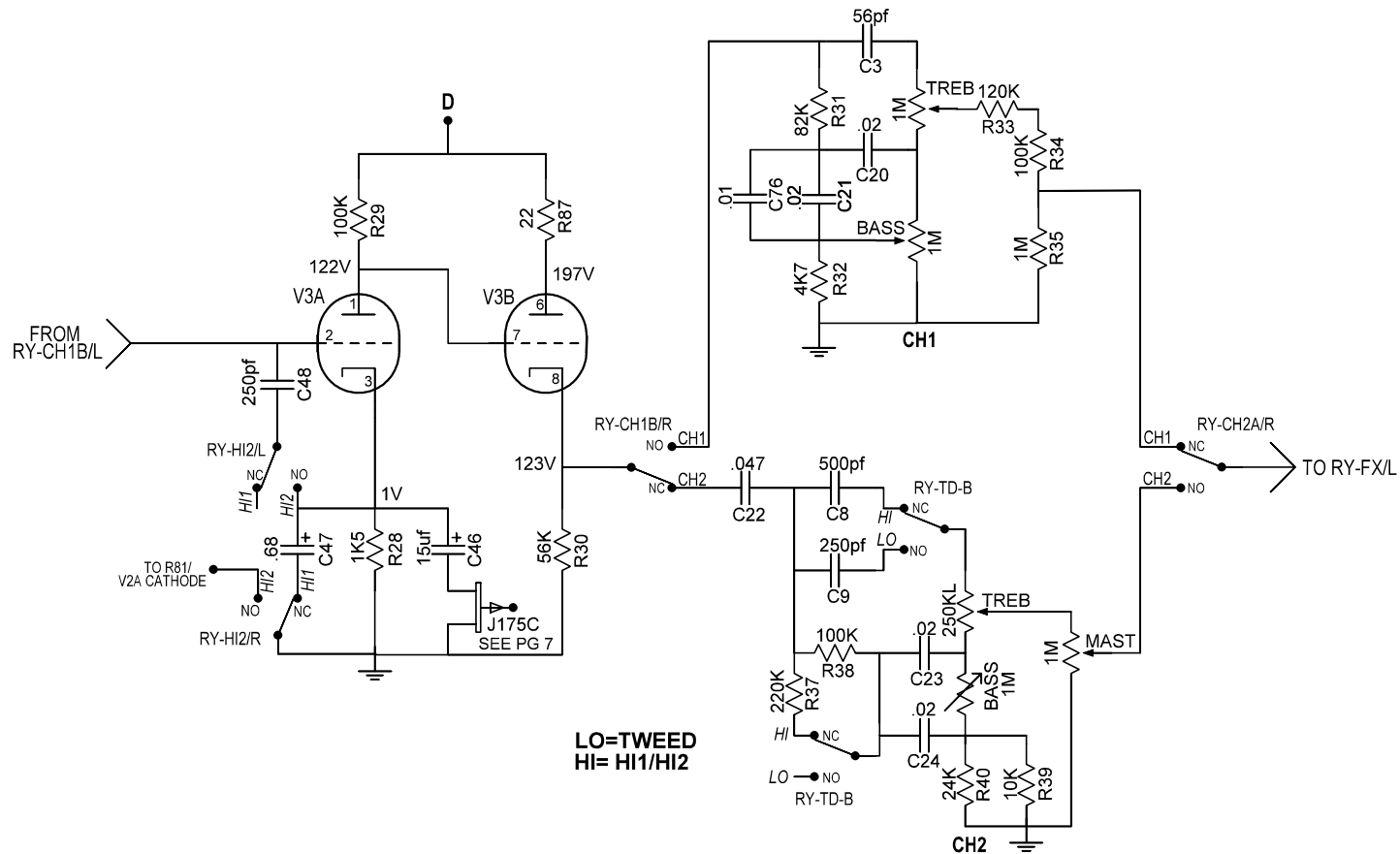
ALL DIODES 1N4448  
UNLESS OTHERWISE NOTED

J175H  
SEE PG 7

J175E  
SEE PG 7

Covered under one or more  
of the following patents:  
5,168,438; 5,208,548; 5,559,469; 5,793,252;  
6,522,752; 6,621,907; 6,724,897; 7,173,488;  
7,193,458; 7,412,064; 7,602,927

<b>MESA/BOOGIE</b>	DATE: 2-17-2011
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	BOARD REV: REV 1A
TRANSATLANTIC TA30	
PREAMP PT.1	
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FILE NAME: TA30	



**RELAY FUNCTION:**

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

**MESA/BOOGIE**

TRANSATLANTIC TA30

PREAMP PT.2

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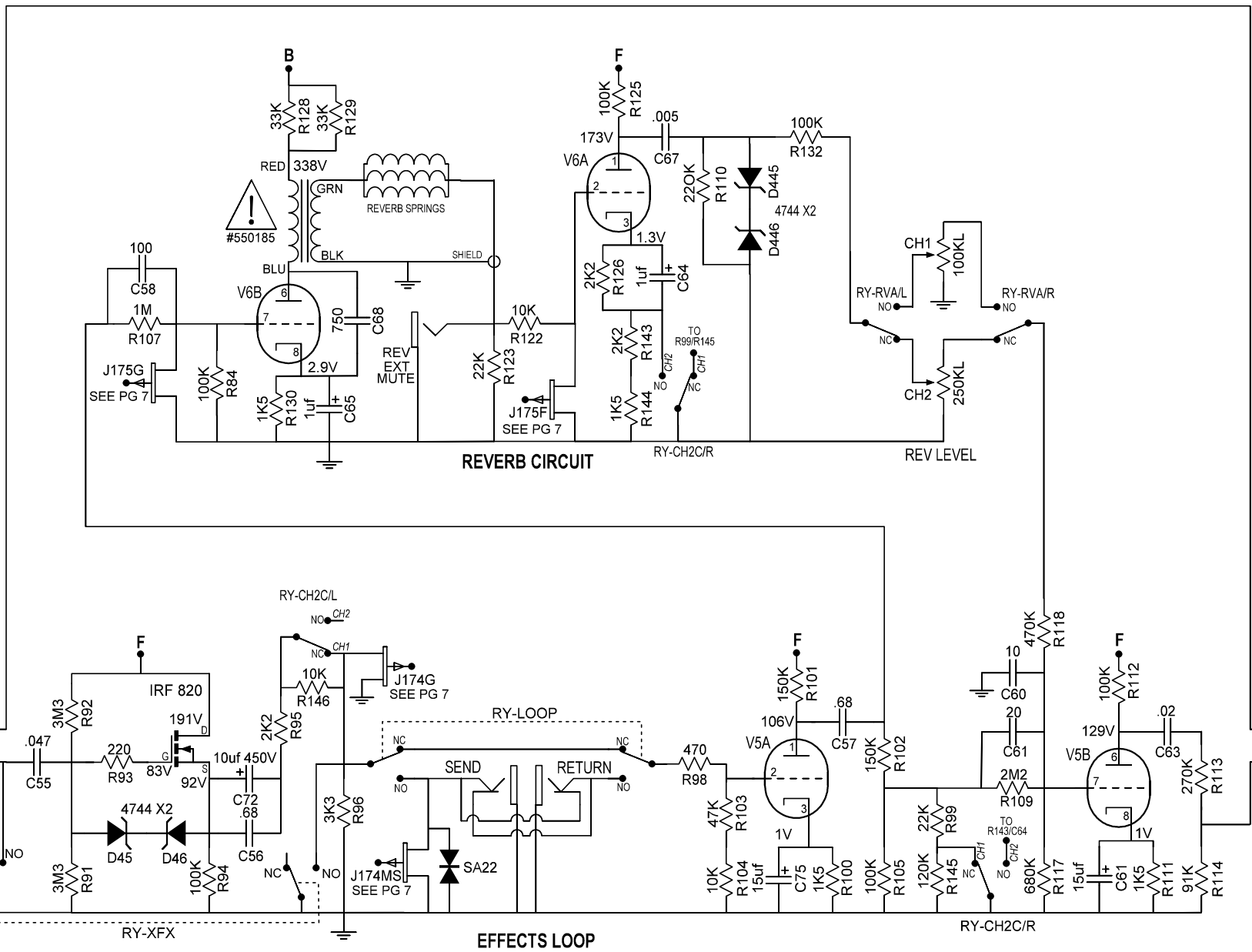
DATE: 2-17-2011

PAGE: 4 OF 8

DRAWN BY: JOHN M.

BOARD REV: REV 1A

FILE NAME: TA30



RELAY FUNCTION:  
 NC=NORMALLY CLOSED/NOT ENERGIZED  
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ALL DIODES 1N4448  
 UNLESS OTHERWISE NOTED

ALL VOLTAGES MEASURED IN  
 CH2, HI1 MODE, 40W  
 EXCEPT AS NOTED

SOME COMPONENTS ON THIS PAGE  
 ARE DUPLICATED ON PAGE 8

Covered under one or more  
 of the following patents:

5,168,438; 5,208,548; 5,559,469; 5,793,252;  
 6,522,752; 6,621,907; 6,724,897; 7,173,488;  
 7,193,458; 7,412,064; 7,602,927

**MESA/BOOGIE**

TRANSATLANTIC TA30

FX LOOP/REVERB

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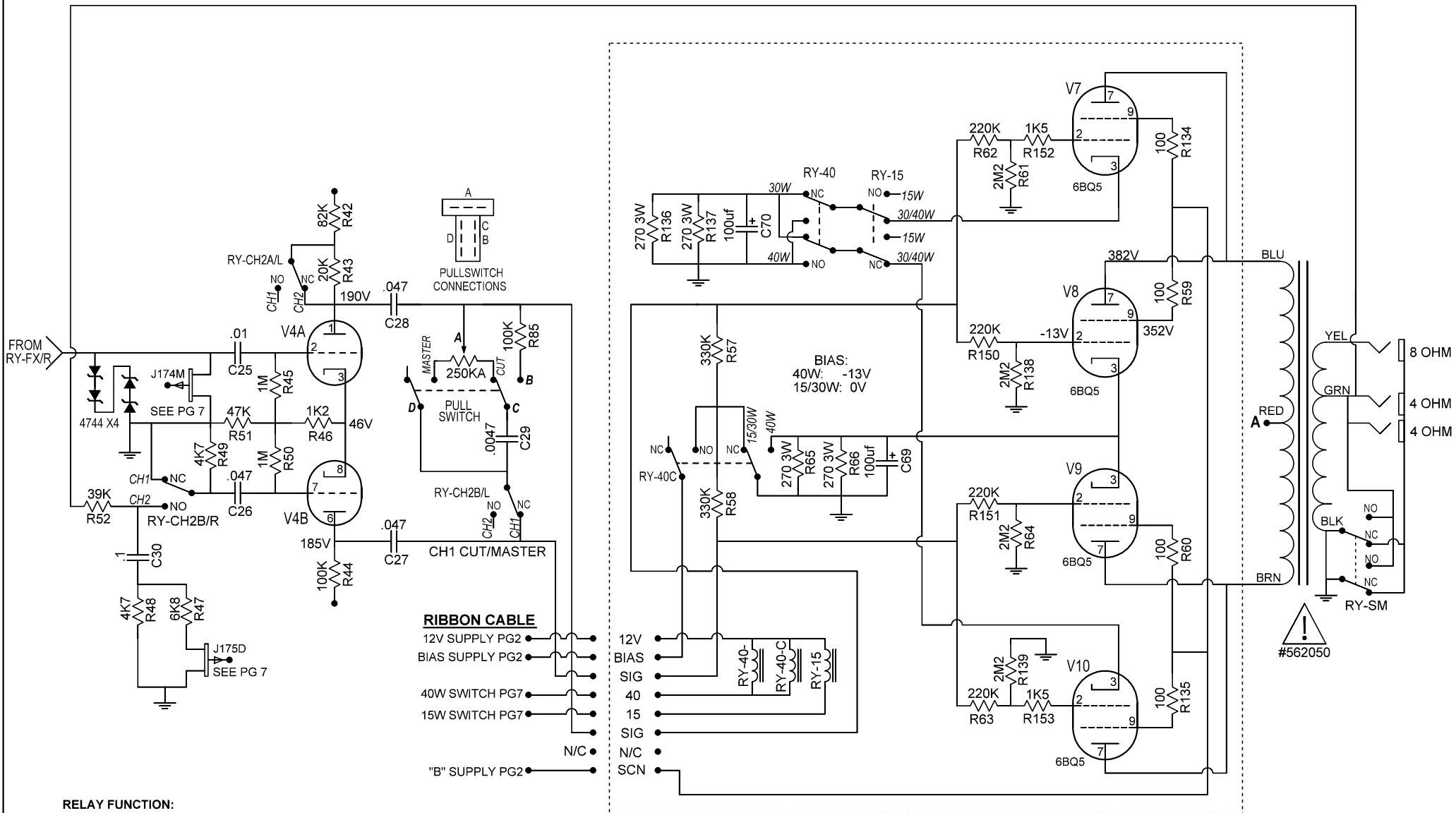
DATE: 2-17-2011

PAGE: 5 OF 8

DRAWN BY: JOHN M.

BOARD REV: REV 1A

FILE NAME: TA30



**RELAY FUNCTION:**  
 NC=NORMALLY CLOSED/NOT ENERGIZED  
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ALL RELAYS SHOWN  
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ALL VOLTAGES MEASURED IN  
 CH2, HI1 MODE, 40W  
 EXCEPT AS NOTED

ALL DIODES 1N4448  
 UNLESS OTHERWISE NOTED

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 ARE DUPLICATED ON PAGE 8**

SWITCHABLE CUT/MASTER  
 PATENT APPLICATION  
 IN PROCESS

DUO-CLASS POWER  
 PATENT #7,173,488

CHANNEL ASSIGNABLE POWER  
 PATENT #7,602,927

**POWER TUBE BOARD**

Covered under one or more  
 of the following patents:  
 5,168,438; 5,208,548; 5,559,469; 5,793,252;  
 6,522,752; 6,621,907; 6,724,897; 7,173,488;  
 7,193,458; 7,412,064; 7,602,927

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	PAGE: 6 OF 8
	DRAWN BY: JOHN M.
	BOARD REV: REV 1A
	FILE NAME: TA30
TRANSATLANTIC TA30	
DRIVER/POWER AMP	
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**RELAY FUNCTIONS:**

- RY-CS: CHAN BUS
- RY-CH1A: INPUT
- RY-CH1B: V3 IN/OUT
- RY-CH2A: V4A PLATE/TONE CONTROL
- RY-CH2B: NFB/CUT CONTROL
- RY-CH2C: FX LEVEL/V6A CATHODE
- RY-15: 15W OUTPUT TUBE
- RY-40-A: 40W POWER SUPPLY
- RY-40-B: 40W POWER SUPPLY
- RY-40-C: BIAS OFF/ON
- RY-FX: FX/REV CIRCUIT BYPASS
- RY-XFX: LOOP CIRCUIT MUTE
- RY-LOOP: SEND/RETURN
- RY-RV-A: REV LEVEL
- RY-TD-A: V2A IN/CH2 GAIN CONTROL
- RY-TD-B: CH2 TONE CONTROL
- RY-HI1: CH2 GAIN CONTROL
- RY-HI2: V2A/V3A CATHODE

**FET FUNCTIONS:**

- J175A: V1 CATHODE
- J175B: V2B CATHODE
- J175C: V3A CATHODE
- J175D: NFB/V4B
- J175E: V2B CATHODE
- J175F: REV RET MUTE/V6A
- J175G: REV ON/OFF F/S
- J175H: V2B CATHODE
- J175M: MAIN MUTE/V4A
- J175MS: FX SEND MUTE
- J175SM: SPKR MUTE RELAY

**TRANSISTOR FUNCTIONS:**

- 6426FS: REV F/S ON/OFF
- 6426G: RELAY HI1
- 6426M: MUTE PULSE
- 6426XFX: RELAY XFX/LOOP MUTE

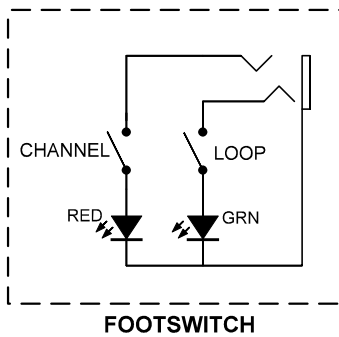
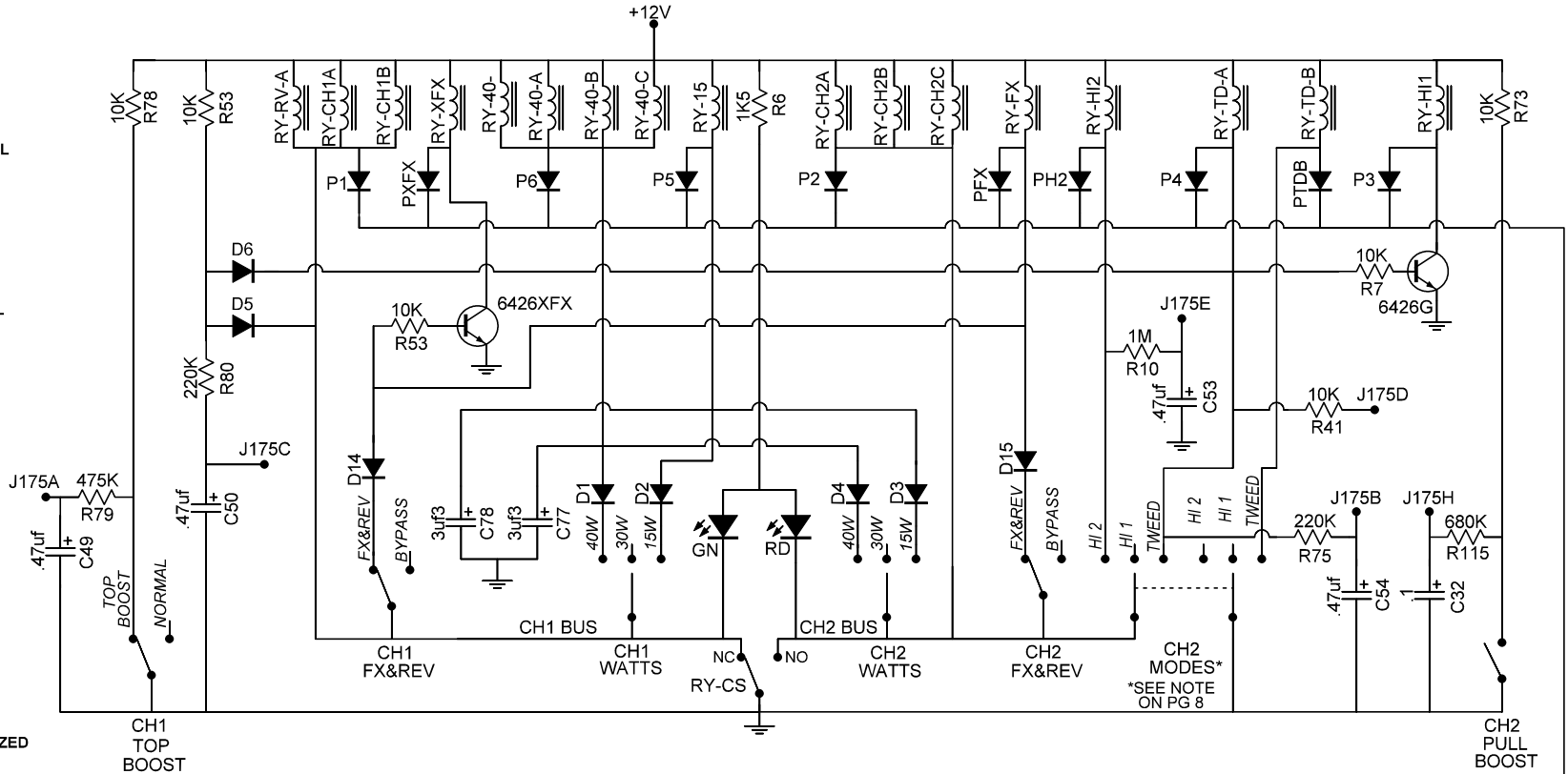
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NO=NORMALLY OPEN/ENERGIZED

ALL RELAYS SHOWN  
IN NC/NOT ENERGIZED POSITION

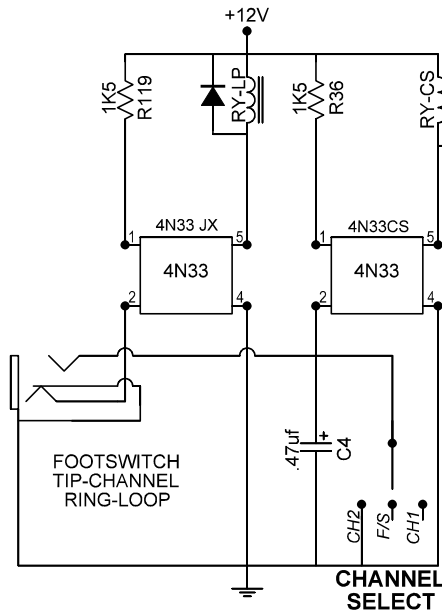
ALL DIODES 1N4448  
UNLESS OTHERWISE NOTED

SEE PG 8 FOR COMPONENT  
LOCATIONS ON BREAKAWAY  
CIRCUIT BOARDS

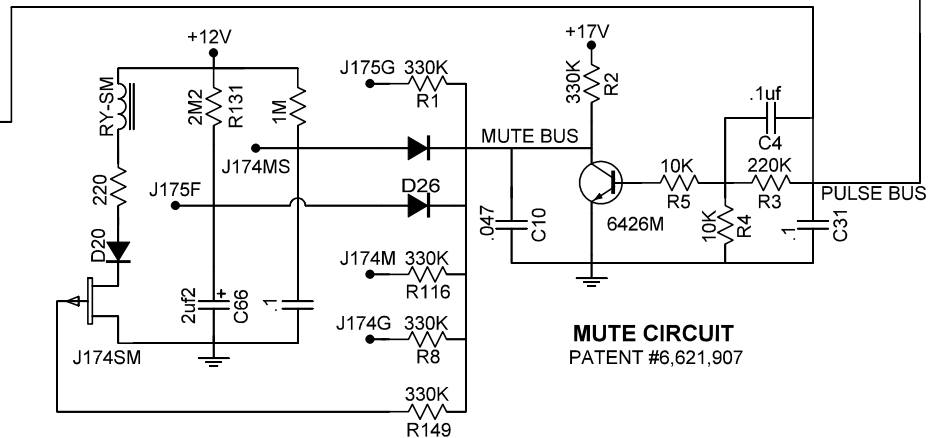
SOME COMPONENTS ON THIS PAGE  
ARE DUPLICATED ON PAGE 8



**FOOTSWITCH**



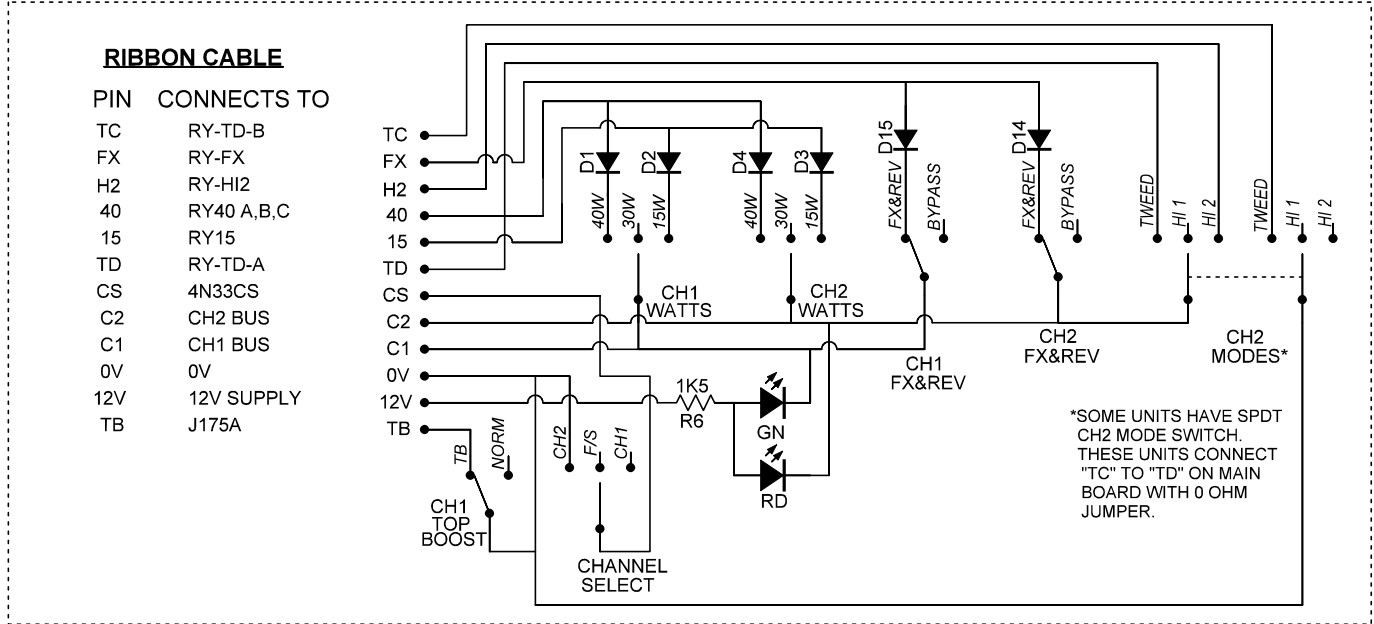
**CHANNEL SELECT**



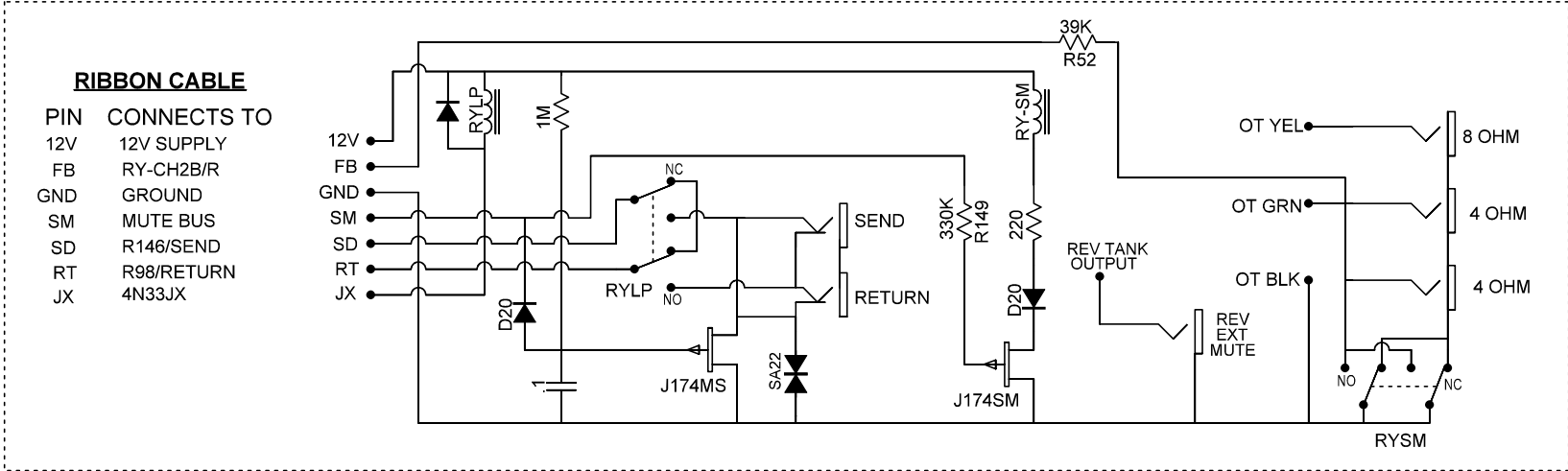
**MUTE CIRCUIT**  
PATENT #6,621,907

Covered under one or more  
of the following patents:  
5,168,438; 5,208,548; 5,559,469; 5,793,252;  
6,522,752; 6,621,907; 6,724,897; 7,173,488;  
7,193,458; 7,412,064; 7,602,927

<b>MESA/BOOGIE</b> TRANSATLANTIC TA30 SWITCH MATRIX COPYRIGHT 2010 MESA BOOGIE, LTD.	DATE: 2-17-2011
	PAGE: 7 OF 8
	DRAWN BY: JOHN M.
	BOARD REV: REV 1A
FILE NAME: TA30	



**FRONT PANEL SWITCH BOARD**



**REAR PANEL JACK BOARD**

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

ALL RELAYS SHOWN  
IN NC/NOT ENERGIZED POSITION

ALL DIODES 1N4448  
UNLESS OTHERWISE NOTED

SOME COMPONENTS ON THIS PAGE  
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5,168,438; 5,208,548; 5,559,469; 5,793,252;  
6,522,752; 6,621,907; 6,724,897; 7,173,488;  
7,193,458; 7,412,064; 7,602,927

<b>MESA/BOOGIE</b>	DATE:	2-17-2011	
	PAGE:	8 OF 8	
	DRAWN BY:	JOHN M.	
	BOARD REV:	REV 1A	
TRANSATLANTIC TA30		FILE NAME:	TA30
BREAKAWAYS			
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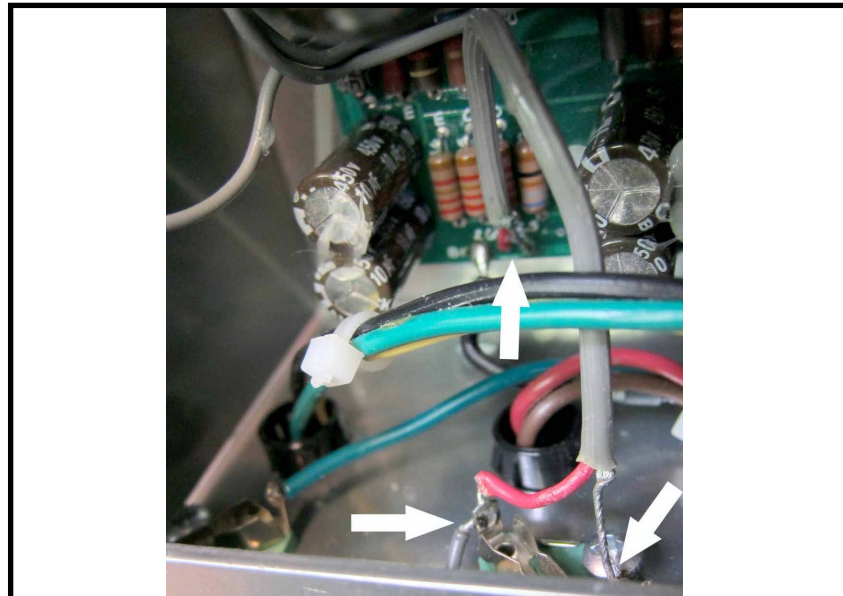


## TransAtlantic TA-30 Reverb & FX Noise Mod

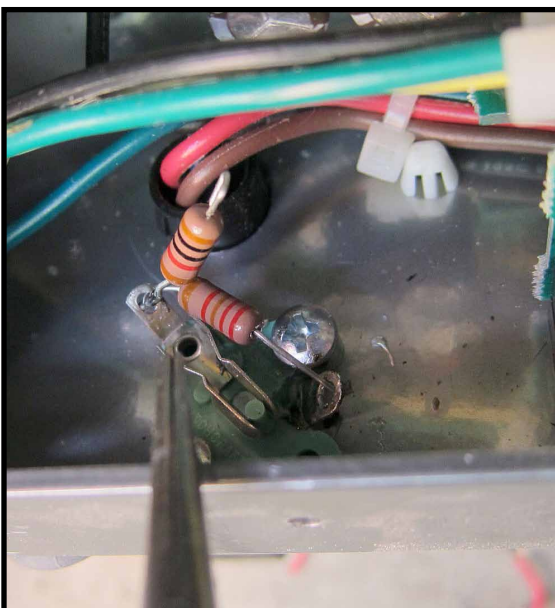
This mod reduces hum and noise generated by a trace on the rear panel board picking up hum from the Reverb Circuit when the FX/Reverb is on. This mod abandons the trace on the circuit board in favor of a hardwired shielded wire and associated components:

Parts needed:	Mesa Part #
10k 1/2 watt resistor	505010
22k 1/2 watt resistor	505022
J-175 with long leads	520475
Shielded Wire	678416(14")

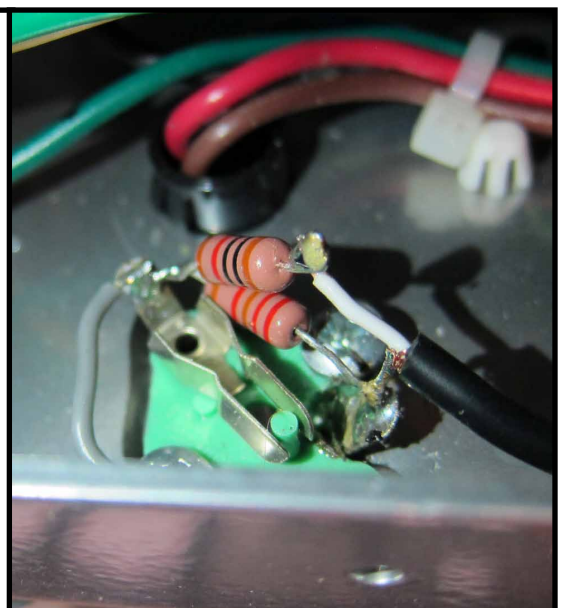
Note: The process shown is in a combo chassis which slightly more challenging due to the chassis design and decreased access. The process and attachment points are the same in a head version but with easier access.

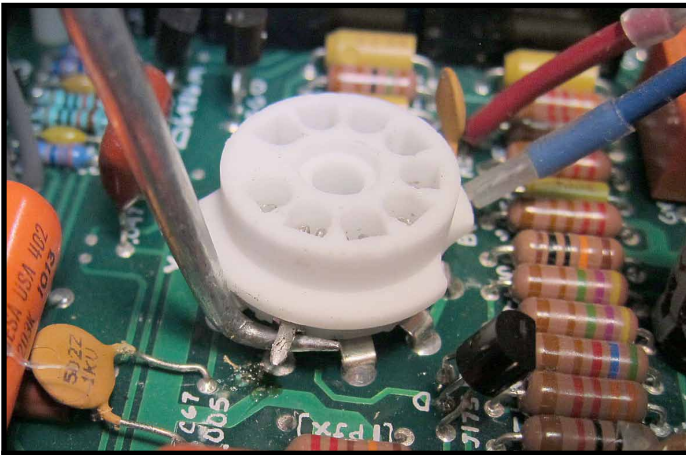


1) Remove the existing shielded Reverb cable and the gray Reverb footswitch wire from the Reverb Return jack to the PC board. Desolder the wires on the jack but on the PC board, a clean cut to remove the cable is all that's required.

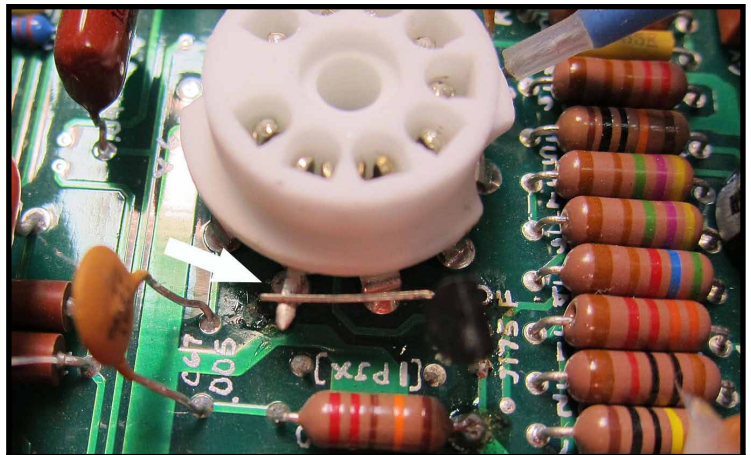


2) Place the 22k resistor between the hot and ground of the reverb return jack. One end of the 10K will connect with the hot of the shielded cable - the other connects to the hot of the jack, shared with the 22K. Attach the hot of the shielded cable to the 10K and the shield to ground lug of reverb return jack. Finally, re-tack the gray reverb ftsw wire back into place.

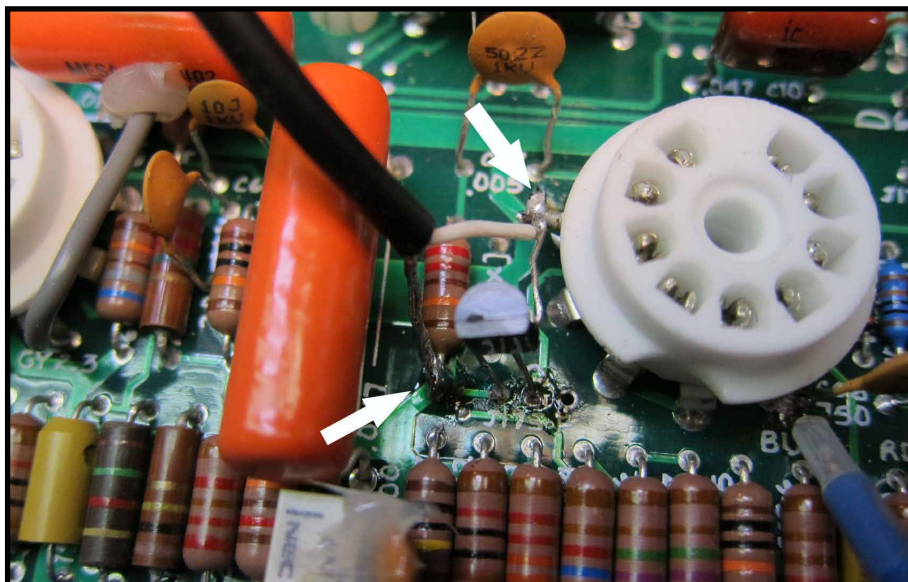




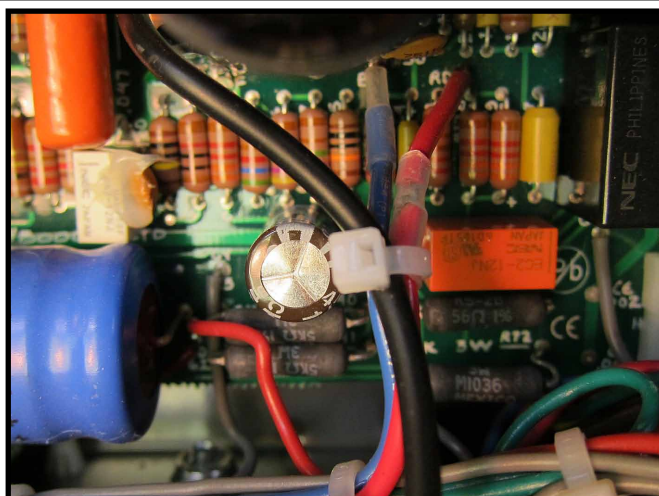
3) Lift pin #2 of V6 by placing probe behind the pin and lifting out while unsoldering.



4) Remove old J175 and install the long lead J175 and lay the non-grounded leg over pin #2 of V6.



5) Route and solder the other end of the 14" shielded cable. The hot goes to pin #2 (upper arrow) and the shield goes to PC board ground at the 220k and J175-F node (lower arrow).



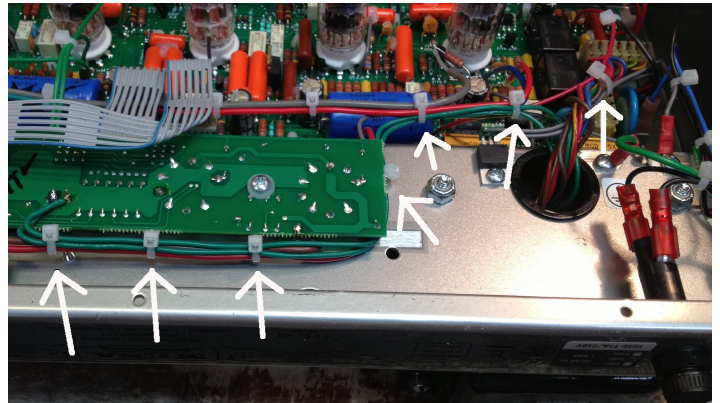
6) Tiewrap the new shielded cable to the red & blue Reverb transformer wires to stabilize the newly added wire at V6.

# Mesa/Boogie Tech Bulletin

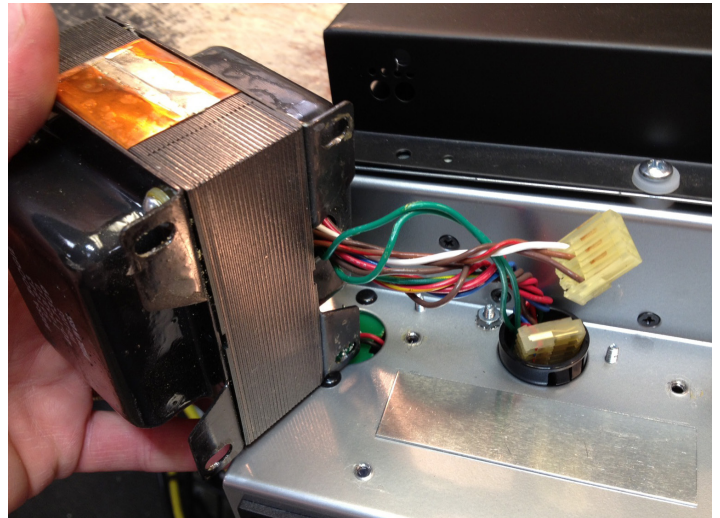
## TA-30 HEAD ONLY Reverb Hum Update July 2013

This update reduces excess hum at higher reverb settings in TA-30 Heads below serial number 2900. The update involves remounting the power transformer with a new mounting bracket.

1. Remove the screws for the lid (4 on each side). Carefully lift the lid partially off. There are 3 connectors for the fan and display leds that plug in next to the power transformer. Note their connection and orientation before lifting them off.
2. Turn the chassis over and remove the bottom. (10 screws total).
3. Remove the tie wraps from the green filament wire bundle and the two power transformer header wire bundles (shown right).



4. Mark one of the green filament wires for location (they are trimmed for length), and then unsolder them both. Lift the two transformer headers from the circuit board, noting their orientation.
5. Remove the 4 power transformer mounting screws and nuts and remove the power transformer. The larger secondary header will fit through the chassis hole sideways. Note where the heatsink plate was located under the transformer.

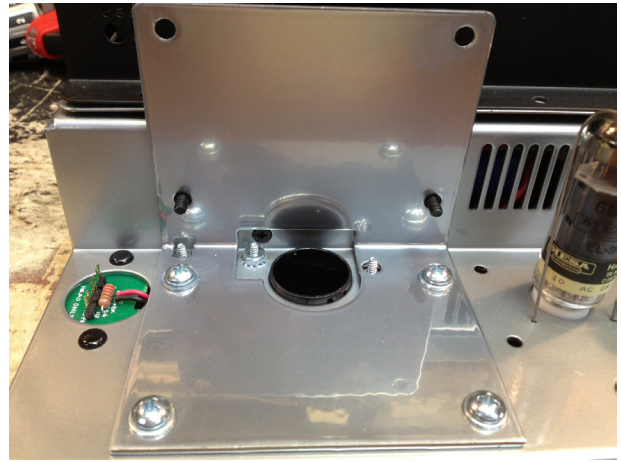


6. Remove the grommet and replace with the new one as shown and place the heatsink plate back in its original position (shown right).

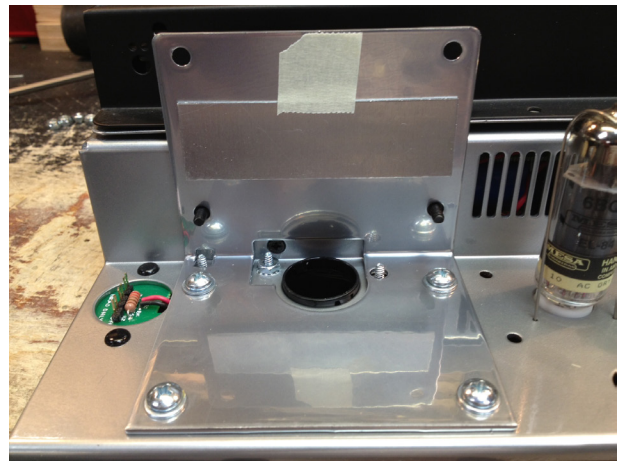


- Place the two countersunk bolts in the bottom vertical holes of the new mounting bracket and install the bracket using the original transformer mounting bolts and nuts (shown right).

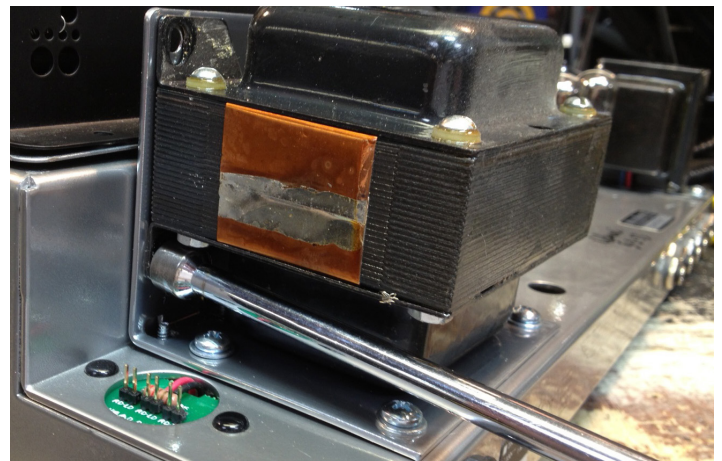
*Note: New bracket mounts on top of the heatsink plate.*



- Set the new heatsink plate on the bracket, holding it in place with a small piece of masking tape.



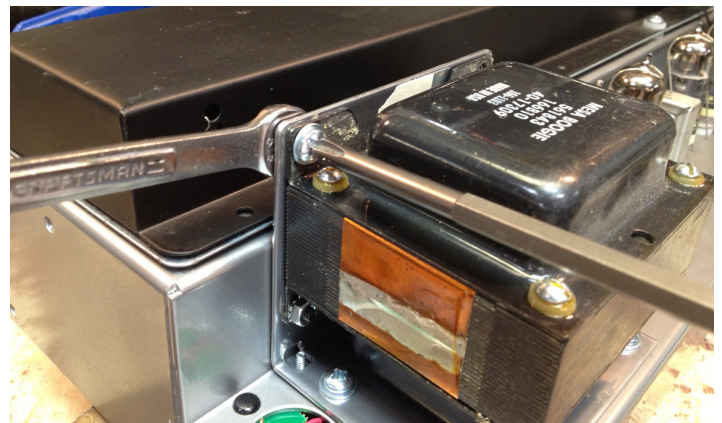
- Remount the transformer as shown. Use the #8 lock nuts for the two lower countersink screws. Pushing inward on the nut driver will help stabilize the screw so that the nut can be tightened. Use the two #10 bolts, washers and nylon nuts for the top two mounting holes. Mounting the nuts on the bottom side of the bracket will make it easier to tighten the screws. **Tighten all nuts very securely.** Remove the masking tape once the transformer has been tightened.



- Reinstall the two transformer headers, and resolder the two green filament wires to their original position.

- Neatly bundle and tie wrap the filament wires and the transformer header wires to their original position.

- Reinstall bottom cover and lid.



#### Parts List

497549	Bracket.....	Qty 1
360941	Heatsink Plate.....	Qty 1
302080	#8 Countersunk screw .....	Qty 2
300120	#8 Lock nut .....	Qty 2
303211	#10 Screw.....	Qty 2
300001	#10 Washer.....	Qty 2
300111	#10 Nylon lock nut .....	Qty 2
151004	Tiewrap.....	Qty 8

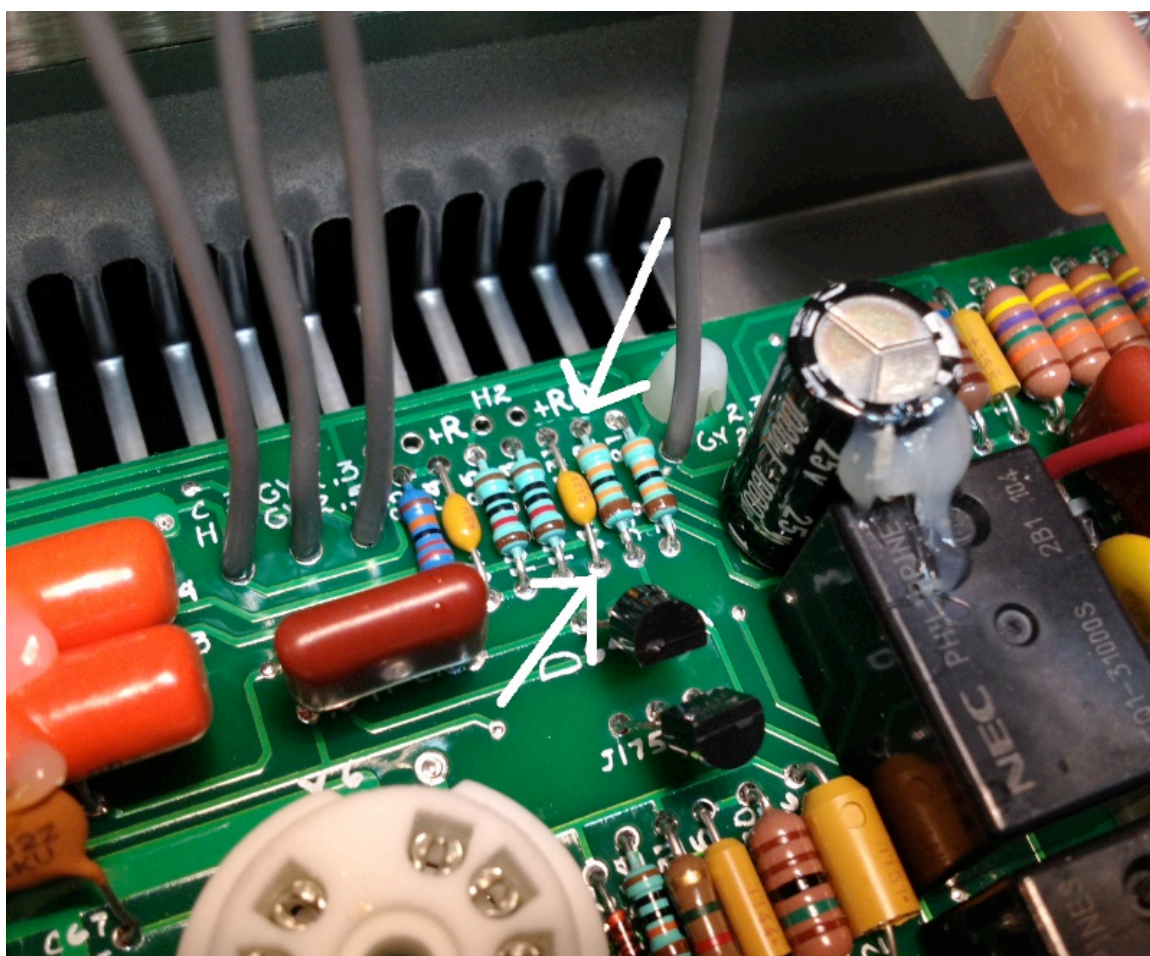
# September 2013 Mesa/Boogie Tech Bulletin

## TA30 Buzz/Dropout Update

Amplifiers affected: Serial #2941 and below

**Symptom:** Amp will buzz when switched to 40W or 15W modes. Also, amp may lose sound intermittently, and switching wattage switch will bring it back.

**Fix:** Add a 2.2kuf 25V electrolytic filter cap to the +15V supply, Mesa Part #525224.



Solder the filter cap to the two points shown (V6 removed for clarity). The negative end connects to the rear end of C31, and the positive end connects to the forward end of R2. Add silicone glue for support. See pictures for reference.

