

## **WARNING! - Please Read this Information Carefully:**

The project described in these pages utilizes **POTENTIALLY FATAL HIGH VOLTAGES**. If you are in any way unfamiliar with high voltage circuits or are uncomfortable working around high voltages, **PLEASE DO NOT RISK YOUR LIFE BY BUILDING THEM**. Seek help from a competent technician before building any unfamiliar electronics circuit. While efforts are made to ensure accuracy of these circuits, no guarantee is provided, of any kind!

**USE AT YOUR OWN RISK:** THE WEBMASTER, PROJECT COORDINATOR, PROJECT CONTRIBUTORS AND WEB SPACE PROVIDER EXPRESSLY DISCLAIM ALL LIABILITY FOR INJURY OR PROPERTY DAMAGE RESULTING FROM THIS INFORMATION! ALL INFORMATION IS PROVIDED 'AS-IS' AND WITHOUT WARRANTY OF ANY KIND.

## **GENERAL NOTES:**

This project is in the **PRELIMINARY STAGES** and is not intended to be built except by **very experienced builders**. These documents have not been extensively debugged, and as such may contain serious errors. Once this project has been officially prototyped and debugged a general release of these documents will be made.

## **CORE CHASSIS DRILL PLAN:**

The chassis drill plan is common to all of the AX84 core series amps. Not all holes are used in all amps. You may want to drill all of them if you plan on upgrading, or modifying the amp in the future.

The chassis hole sizes and locations on these plans are correct for the components used in the construction of the prototype amp. At the current time, not all of the amps have been prototyped, so the size, number, and location are subject to change.

It is the builder's responsibility to insure that the hole sizes, numbers, and locations are correct for the parts used in their own build.

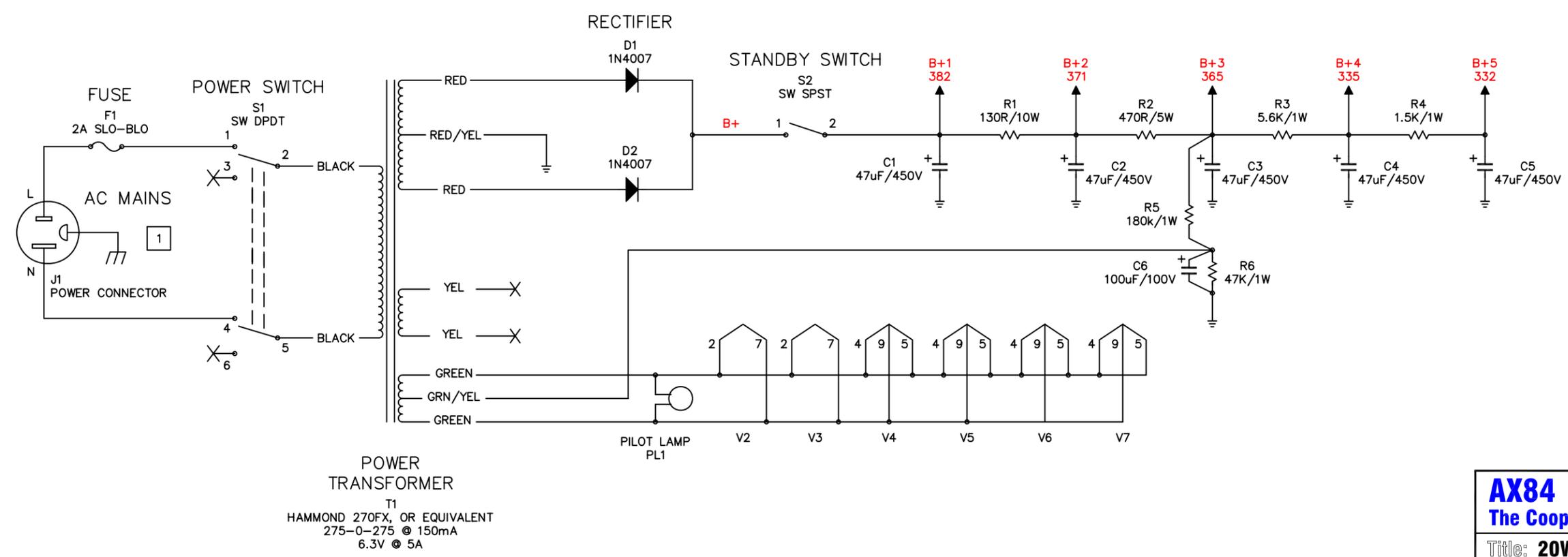
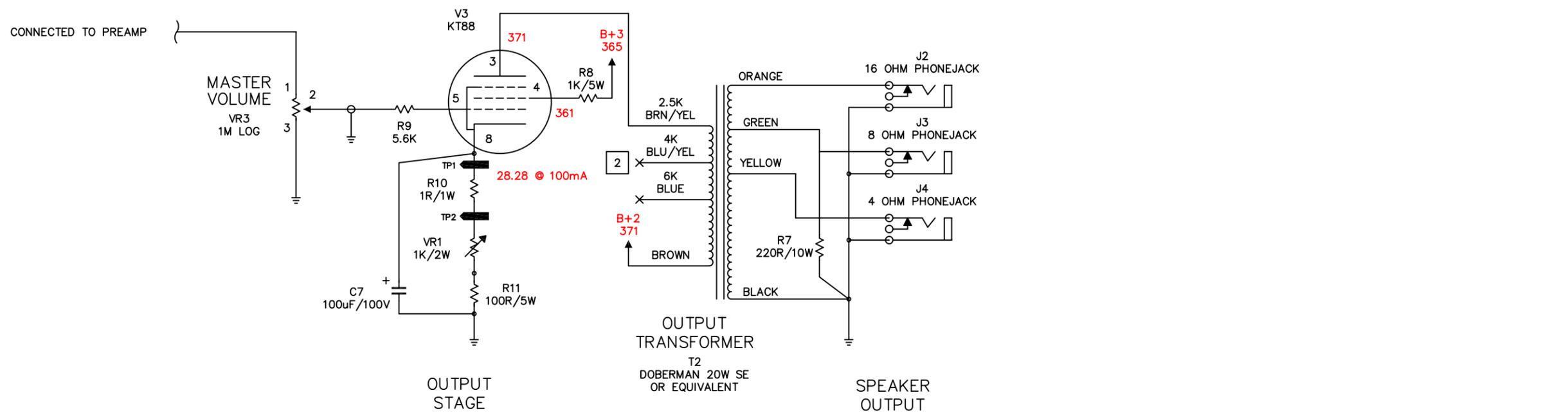
Do not assume that the parts you ordered individually, or bought as a kit, have the same dimensions as those used in the construction of the prototype amp.

Revision	Description
07.06.27	Corrected The Bias Calculation Note
07.06.28	Corrected Pin 3 Voltage Reading
07.07.09	Added EL34 Hookup Detail
07.10.02	Corrected Value Of C1 Added R7 To Main Schematic

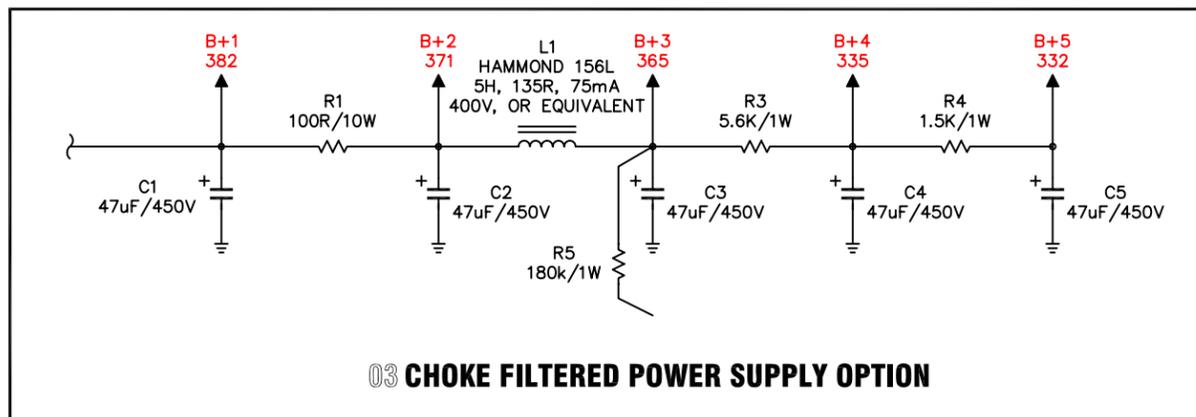
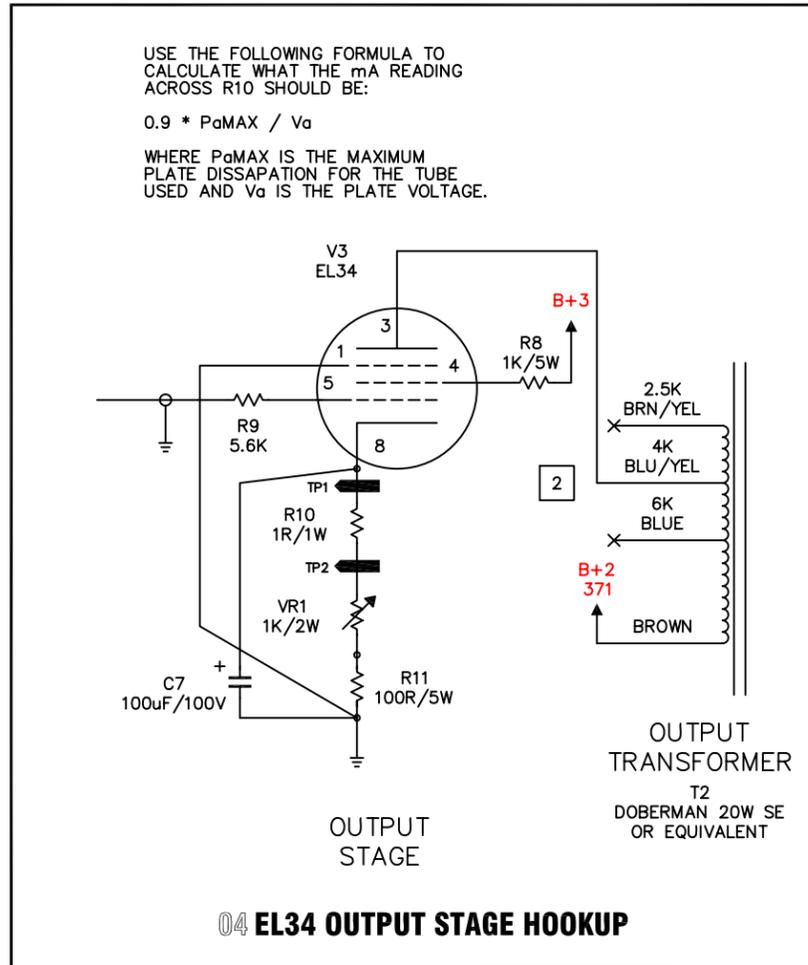
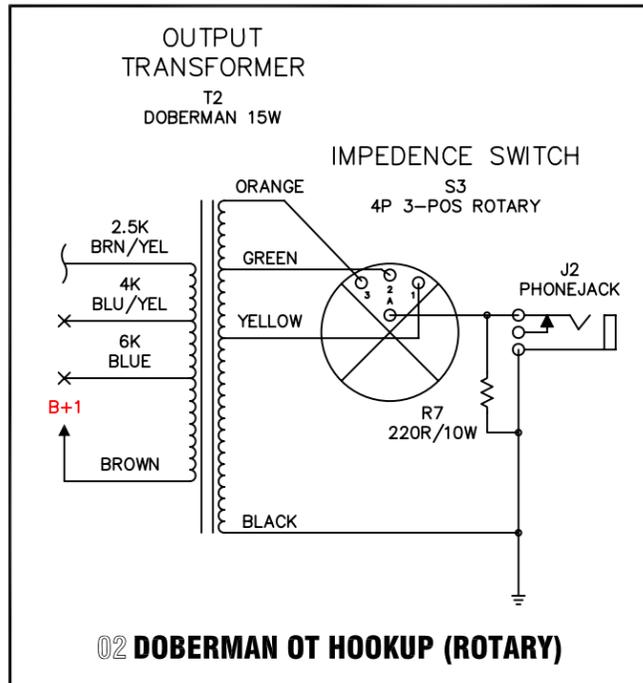
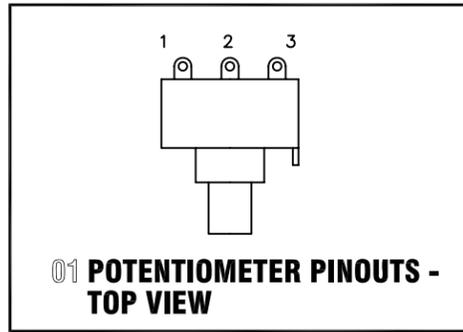
USE THE FOLLOWING FORMULA TO CALCULATE WHAT THE mA READING ACROSS R10 SHOULD BE:

$$0.9 * P_{aMAX} / V_a$$

WHERE  $P_{aMAX}$  IS THE MAXIMUM PLATE DISSIPATION FOR THE TUBE USED AND  $V_a$  IS THE PLATE VOLTAGE.



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GENERAL NOTES:

1. ALL RESISTORS 1/2W MINIMUM UNLESS OTHERWISE NOTED.
2. ALL COUPLING CAPACITORS 400V OR GREATER.
5. THE  SYMBOL REPRESENTS SHIELDED CABLE.
6. NOT ALL COMPONENTS ARE USED WITH ALL AMPS. THIS RESULTS IN COMPONENT NUMBERING GAPS AND IS NORMAL.

VOLTAGE READING NOTES:

1. THE VOLTAGE READINGS ARE FROM THE PROTOTYPE. YOUR VOLTAGES MAY VARY, PLUS OR MINUS, A FEW VOLTS.
2. DIFFERENT TUBES DRAW DIFFERENT AMOUNTS OF CURRENT, NO TWO ARE ALIKE UNLESS THEY ARE MATCHED. THE AMOUNT OF CURRENT DRAWN BY ALL THE TUBES IN THE AMP WILL AFFECT VOLTAGE READINGS THROUGHOUT THE AMP.
3. USING A POWER TUBE OTHER THAN A KT88 WILL CAUSE THE VOLTAGES ON THE VARIOUS B+ TAPS TO RISE. IT IS THE RESPONSIBILITY OF THE BUILDER TO ADJUST THE VALUES OF R4 AND R5 SO THAT THEY ARE WITHIN +/-2V OF THE VALUES SHOWN.

CONSTRUCTION NOTES:

1. THIS IS A GROUND CONNECTION TO THE CHASSIS. THE MAINS SAFETY CONNECTION SHOULD BE MADE AS CLOSE AS POSSIBLE TO THE POINT WHERE AC ENTERS THE CHASSIS. THE CIRCUIT CONNECTION SHOULD BE MADE AS CLOSE AS POSSIBLE TO THE INPUT JACK. IDEALLY, THE JACK ITSELF SHOULD BE USED AS THE CONNECTION POINT BY NOT ISOLATING IT FROM THE CHASSIS.
2. THE OUTPUT TRANSFORMER HOOKUP SHOWN IS FOR A KT88 POWER TUBE. DIFFERENT POWER TUBES REQUIRE DIFFERENT OUTPUT TRANSFORMER HOOKUPS. REFER TO THE TABLE BELOW FOR THE CORRECT HOOKUPS FOR THOSE DIFFERENT TUBES.

OUTPUT TUBE	IDEAL LOAD	HOOKUP WIRE
6V6x	8.5K	BLUE
EL34	5K	BLU/YEL OR BLUE
5881	4.2K	BLU/YEL
6L6x	4.2K	BLU/YEL
KT66	4K	BLU/YEL
KT77	?K	?
6550	2.5K	BRN/YEL
KT88	2.5K	BRN/YEL