# TRIODE ELECTRONICS   JCM800 2204 50W LAYOUT

## W/ 40-18023 Power Transformer

MAINS
A  B

STAND-BY
C  D

INDICATOR
Pilot Light
6.3V AC

pin7  V5  pin2

Presence  Bass  Middle  Treble  Master  Volume

25K L LIN  1M A LOG  25K L LIN  250K L LIN  1M A LOG  1M A LOG

470K
500pF

LO

HI

1M

Shielded Wires

0.1uF  4.7K

TO STAR GROUND

RED & RED

G  E  F  H (50uf)

BLUE (COM)

220K  220K  10K 2W  0.022uF  230K  220K  0.022uF  10K  0.1uF  10K  0.022uF  10K 1W  10K 1W  0.022uF  0.022uF  500pF  100K  820  500pF  470K  470K  0.022uF  0.022uF  0.68uF  2.7K  10K

10uF 160V  10uF 160V  100K  82K  1M  470  1M  100K  100K

BLACK 120V
ORANGE 220V
YELLOW 240V
TO VOLTAGE SELECTOR

56K  15K  47pF  33K  68K

BLACK (SMALL)
BROWN

ORANGE & BLACK

E  5.6K2W  F  5.6K2W  J  CHOKE  I (50uf)

100uF / 500V X2

1K 5W  1K 5W

V5  V4  O.T. Secondary  V3  V2  V1

100uF / 500V X2  50uF / 500V X2

G  H  1R 1W  1R 1W  100uF  100uF  100uF  100uF

16 ohms  8 ohms  4 ohms

OT PRIMARY

N  E  L

P1

A.C. POWER  MAINS FUSE 4A 120V 2A 240V  HT FUSE 0.5A

C  CHOKE  OT CT

ORANGE 220V
BLACK 120V
YELLOW 240V
P2

A  VOLTAGE SELECTOR  IMPEDANCE SELECTOR  SPEAKER OUTPUT

TO GROUND

50KL Bias  J

BIAS ADJ. POT
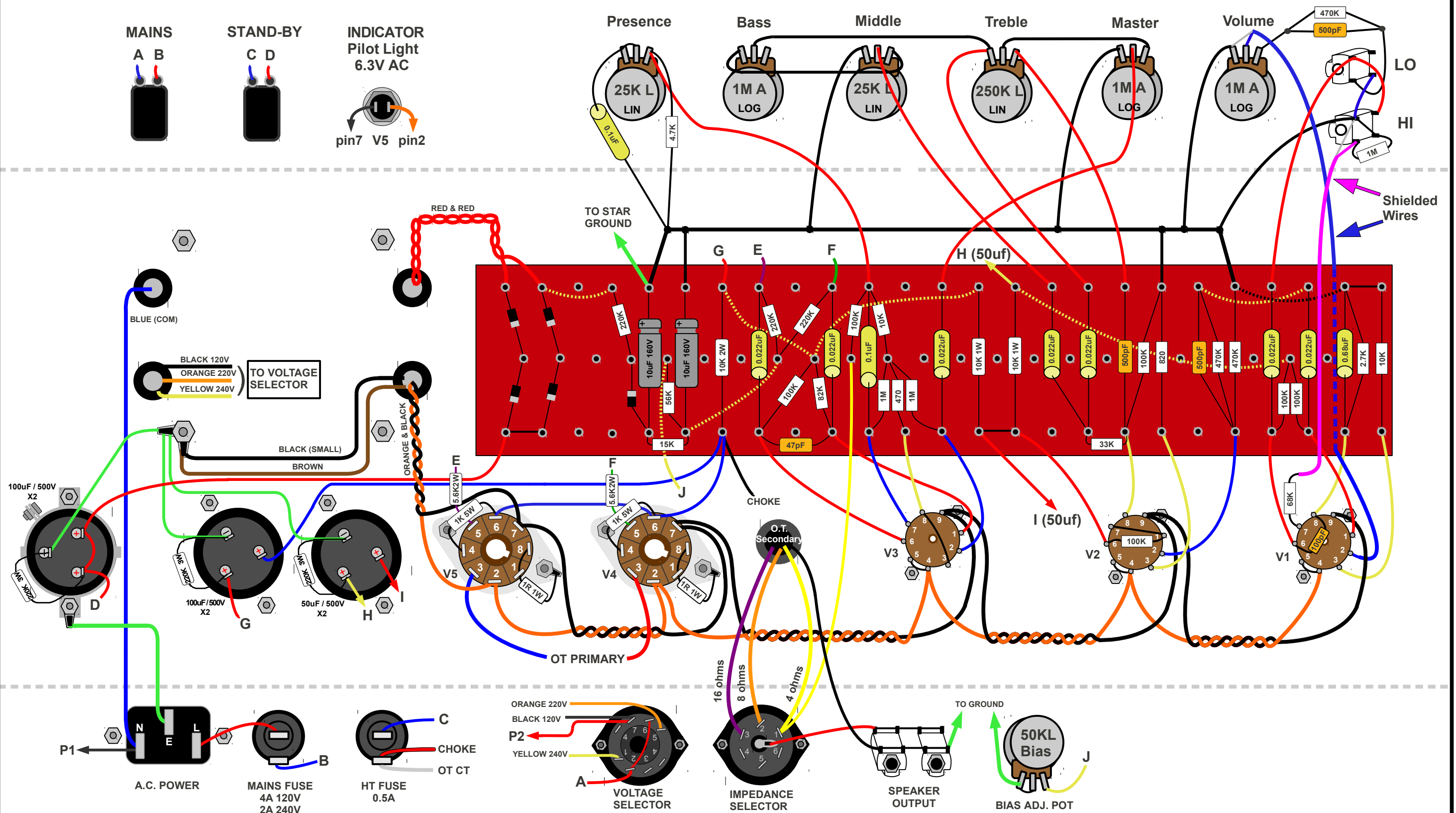
## Bias Adjustment for EL34's:

1) With speaker load connected, turn power "ON" and let tubes warm up. Switch standby to "ON."

2) Set your meter to the Highest DC volts setting (600V or higher), and put the common (ground) lead on one of the chassis mounting nuts or alligator clip it to the chassis. Touch the positive lead to Pin 3 (plate) of one of the EL34 power tube sockets. This is your Plate Voltage. Write it down.
*BE VERY CAREFULL WITH THIS STEP  (HIGH VOLTAGES PRESENT)*

3) EL34's are 25 watts maximum dissipation and you want to set the bias to 70% max dissipation. (70% = 17.5 watts) Divide your desired wattage by the plate voltage that you wrote down from step 2. (example: 17.5/450 = .038 or 38mV) This is your desired bias voltage (probably between 30 and 40 mV).

4) Set your meter to lowest DC Volts setting (200mV or less) and touch the common (ground) lead to the grounded side of the 1 ohm resistor coming off of Pin 1 and the positive lead to the Pin 1 side. Adjust the bias potentiometer until the bias voltage you calculated from from Step 3 is achieved.

Plate voltage will change a little when adjusting the bias, so you may need to take another reading from Pin 3 and adjust your equation accordingly and repeat steps 3 & 4.

## Notes:
*Twist filament wires together tightly
*Check Polarity (+ & -) of all Electrolytic Capacitors. In the bias supply the (+) side is grounded.
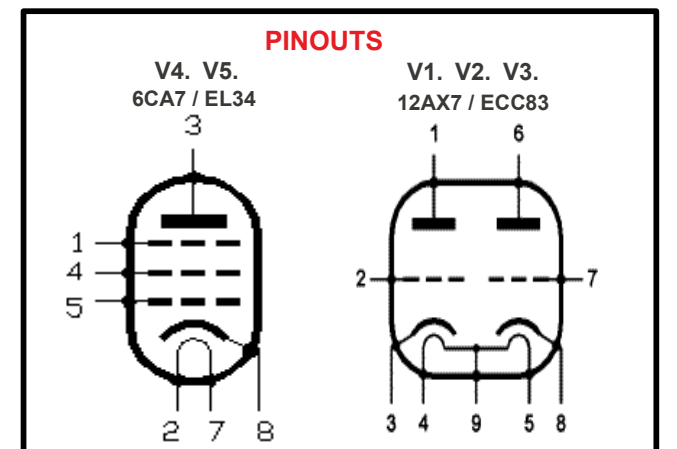*All Resistors are 1/2W Unless Noted
*Shielded Wires are only grounded at one end.
*Power Transformer: 40-18023   Sec = 345V x 2 - 150mA  +  3.15V  x2 - 5A
*Output Transformer: 40-18025   Prim = 3K6 x2 / Sec = 4-8-16  Ohms
*Choke: 40-18032 or TRI-M100D   L = 5Hy - 120mA - DCR = 115 Ohm

For Technical Questions or Comments, Email us at:
questions@triodestore.com

PINOUTS

V4. V5.
6CA7 / EL34
3

1
4
5

2  7  8

V1. V2. V3.
12AX7 / ECC83
1  6

2  7

3  4  9  5  8