

audio research

HIGH DEFINITION®

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VT100 MKIII BIAS ADJUSTMENT

- 1) Locate the four bias test resistors, two for each channel, located near the top edge of each of the left and right circuit boards. These are labeled 1,2,3,4 and correspond to the four small blue/white bias trim pots located in a row near the top front of the left channel circuit board. (See diagrams).
- 2) If replacing the output 6550C tubes, turn the four bias trim pots completely CLOCKWISE using the plastic alignment tool supplied with the VT100 MKIII. This sets the output tube grid voltage maximum negative so when new output tubes are installed, there is no chance the tube idle current will be too high at initial start.
- 3) Connect a digital voltmeter (DVM) with at least 1 mV DC resolution across #1 bias test resistor. Ensure DVM is set to VOLTAGE on mV DC range. DO NOT SET DVM TO READ CURRENT OR AMP AND METER MAY BE DAMAGED. We strongly recommend use of insulated "grabber" type probes that can be attached to the test point resistor leads. Pin probes can slip and short to adjacent circuit traces!
- 4) Turn on VT100 MKIII. Observe the voltage reading on DVM start to come up as tubes warm up. Depending upon the probe connections across the bias test resistors, the DVM will read either a positive or negative voltage. This is not important: Only the actual number displayed should be noted. As tubes warm, the reading will typically read about 5 to 20 mV DC. Check all four bias test resistors for a similar bias reading. If readings at any bias test resistor are either 0 mV DC, or over 65mV DC, immediately shut off VT100 MKIII and consult your dealer's service technician or call Audio Research service department.
- 5) Slowly adjust bias trim pot #1 counterclockwise for a measured 60mV DC at test point #1. Repeat with the other three bias trim pots while measuring across the respective bias test resistors.
- 6) After a 20 minute warm-up, adjust the bias trim pots as above for a final reading of 65mV DC at all four bias test resistors.

BIAS TRIM POTS

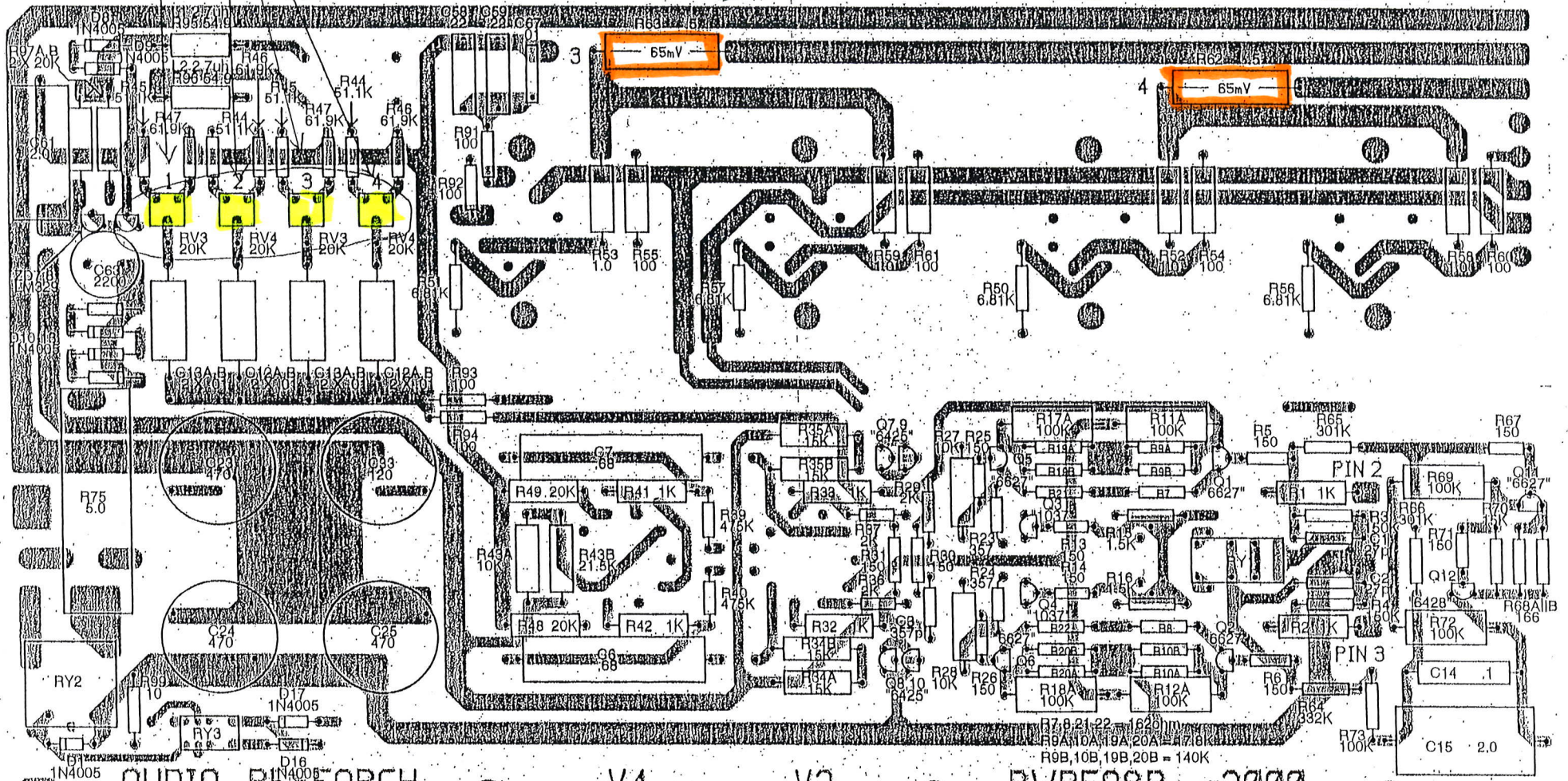
BIAS TEST RESISTORS

V6

V8

V10

V12



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V4

V2

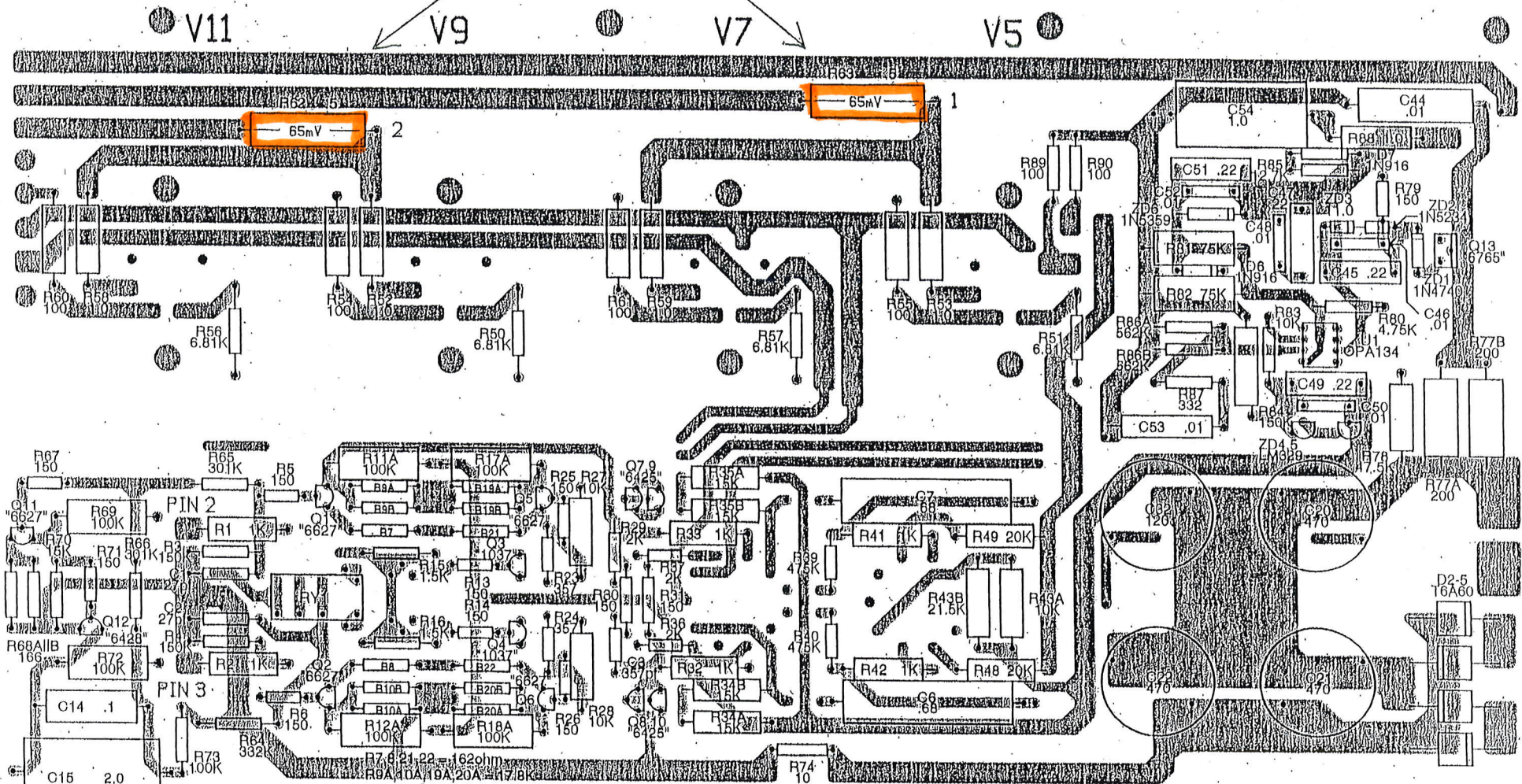
PWB598B c2000

VT100MKIII

PWB598B COMPONENT SIDE

3-15-01

BIAS TEST RESISTORS



PWB599B c2000

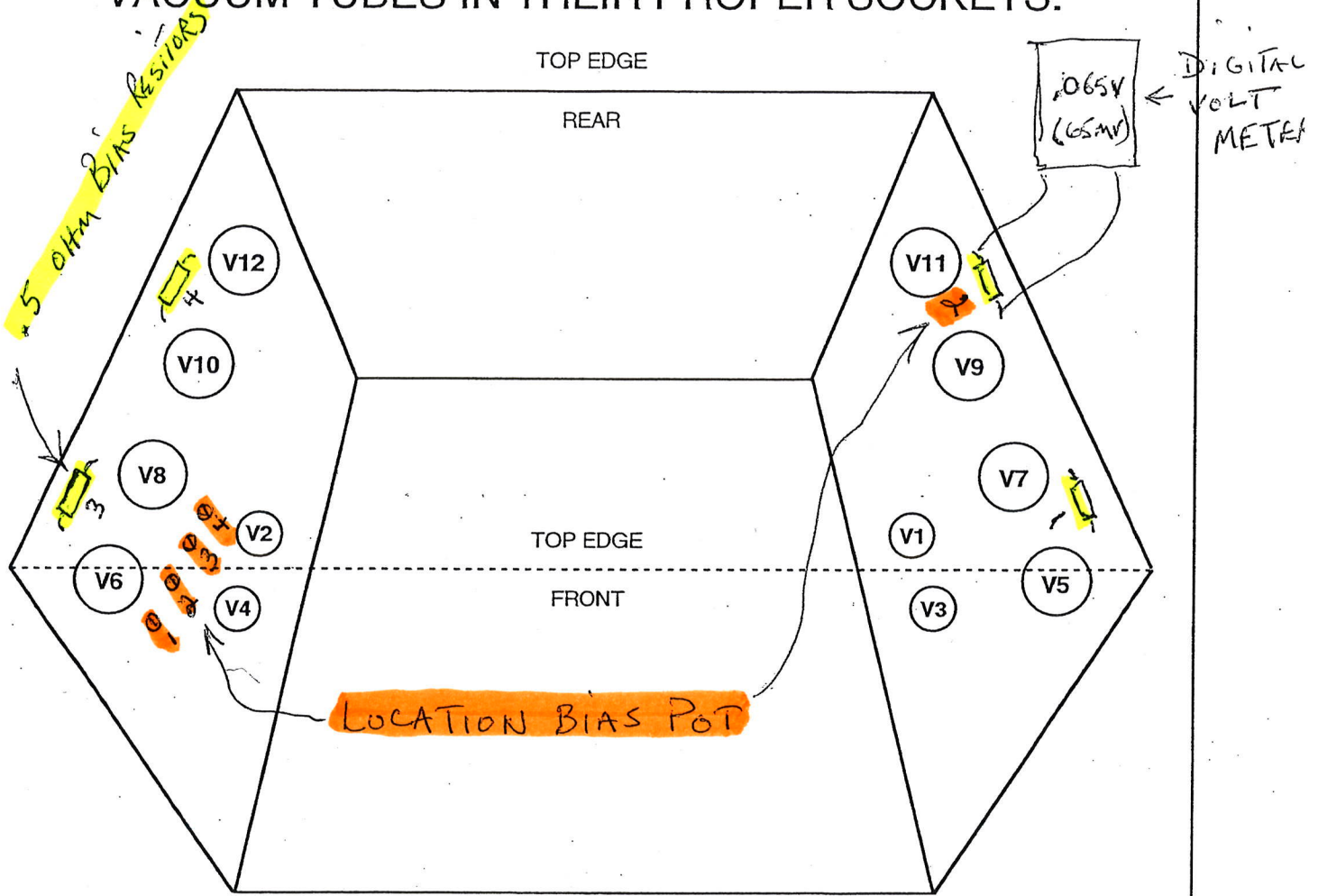
V1 V3

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VT100MKIII
PWB599B COMPONENT SIDE
3-15-01

WARNING!

DO NOT ATTEMPT TO OPERATE THIS VT100 MKIII AMPLIFIER BEFORE INSTALLING THE VACUUM TUBES IN THEIR PROPER SOCKETS.



RELATIVE POSITIONS OF ALL (12) TUBES LOCATED ON TWO CIRCUIT BOARDS AS VIEWED FROM THE FRONT AND LOOKING DOWN FROM ABOVE THE AMPLIFIER.

SEE YOUR OWNER'S MANUAL FOR COMPLETE INSTRUCTIONS FOR SAFE INSTALLATION AND OPERATION.

- POT #1 BIAS FOR V5+7
- " #2 " " V11+9
- " #3 " " V6+V8
- " #4 " " V10-V12