

VT100 AND VT100MKII ADJUSTMENTS DURING COMPLETE RETUBE

First, remove output tubes to prevent damage while setting front end adjustments.

RV1 and RV2 in the VT100 should be adjusted for two conditions, after 20 minutes warmup with covers on:

- 1) +60VDC \pm 1 V at V1-4 plates and
 - 2) balance within .01VC at the junction of R7, 8 compared to the junction of R11, 12.
- This ensures good current balance in the input tubes.

One adjustment affects the other, and the voltages drift slightly, so several readjustments may be needed. The best method is to adjust one trimpot for half the error and then adjust the other trimpot for the other half of the error.

If starting from "scratch", first set both RV1 and RV2 for maximum resistance (lowest current). Then set RV1 for halfway to 60V from the initial plate voltage reading. Then set RV2 for 60V on the plates. Then check cathode junction voltages to ground and trim RV1, 2 slightly in a similar manner (halfway each) for equal voltages at cathode junctions. Then recheck plate voltages and trim again, etc.

3) Also check driver operating points at V5 (6) plates (where 100K ohm MK8 resistor connects to pins 1 and 6 of tube socket on outside of PWBs), these points should be +160VDC with a maximum allowable DC imbalance between pins 1 and 6 of 20VDC. Tubes V1, V2, V3, V4 affect this specification, so you may need to try several 6922s to trim this spec. Unplug outputs during this adjustment. Never unplug front end tubes with outputs in place or the resulting pulse may cause tube arcing. Recheck steps 1, 2 above if V1-V4 changed. Adjust as needed.

4) Install output tubes and bias to 130mV after 20 minute warmup.

FOR VT100MKIII

REMOTE TURN-ON CONNECTIONS

The VT100MKIII has a built-in 12VDC remote turn-on/off circuit for operation by a master control system in a home theater or large audio system. Use a 3.5mm (.140") diameter mono mini-plug to connect to the +12V IN jack on the rear of the VT100MKIII. Two identical paralleled jacks are provided to allow chaining connections to control two or more VT100MKIIIs or other equipment.

The +12V IN jack should be connected to the +12VDC output of the master control system, using a continuous +12VDC signal at 12mA per VT100MKIII for the duration of amplifier on-time. Do not use a momentary or data pulse control signal.

The front power rocker switch on the VT100MKIII must be off to use the remote turn-on. The front power rocker switch may still be used when the remote turn-on is connected, but the remote will not turn the VT100MKIII off if the front power rocker switch is left on. The front power rocker switch will not turn the VT100MKIII off if the remote system is on.

The +12VDC remote jacks have polarity protection, so they will not operate if a -12VDC signal is accidentally connected, or if the control wires are reversed. The 12V remote relay in the VT100MKIII has click suppression to protect circuits in the master control system.

OUTPUT TUBE BIAS ADJUSTMENT

Instead of adjusting bias to 130mVDC at each of two resistor test points as in the VT100 and VT100MKII, the VT100MKIII has four bias adjustments consisting of four bias adjustment pots labeled 1-4, and four corresponding resistor test points, one above each pair of output tubes (each test point is labeled 1-4 and marked 65mV). Adjust each of the four pots to read 65mV at each of these corresponding test points. (Refer to 'Output Tube Bias Adjustment' section in manual for remainder of procedure, voltmeter requirements and cautionary statement before proceeding.)