

CHASSIS 90

Models 91, 92

GRISBY-GRUNOW
MAJESTIC

METHOD OF BIASING

Grid Biasing of the various tubes is accomplished by grounding the grids and applying a positive potential to the cathodes of three tubes.

The biasing of the first, second and third R.F. Tubes is accomplished by the use of a variable resistance from 500 to 2,500 Ohm, which is in series with the volume control resistance and is known as the Equalizer. It is mounted on the rotor shaft of the variable gang condenser and the movable arm turns as the rotor plates are moved. A potential of from 8 to 15 Volt is applied, depending on the tuning dial frequency. The Equalizer is adjusted for a resistance of 1,500 Ohm at 1,000 kilocycles, 500 Ohm at 550 kilocycles, 2,500 Ohm at 1,500 kilocycles, with 15% allowable variation for the last two measurements. The equalizer adjustment arm is secured by a set screw to the back of the gang condenser frame.

The position and tightness of this arm is important. Make sure that the set screw holding the Equalizer Shaft to the gang condenser just inside the gang frame is against the flat portion of the equalizer shaft.

BIASING
4th R. F. Stage
Detector
45

RESISTOR
1,800 Ohm
35,000 Ohm
800 Ohm

BIAS VOLTAGE
9
32

On Power Unit Terminal Strip

ALIGNING AND BALANCING

Make certain that resonance is obtained for each stage, using both Master Tuning Control and Trimmer. When using dummy tube for balancing, place shield over it, to include capacity effect of shield. A dummy tube having a Grid to Plate of appr. 3.4 m.m.f. is suggested, as this capacity is used when receiver was originally balanced. **PROCEDURE OF BALANCING IS THE SAME AS FOR CHASSIS 70, 70B**

ANTENNA SWITCH

To prevent distortion of tone from close-by powerful transmitters on moderately long antenna, snap switch to "Local" position. Use "Distance" position for stations with less powerful reception.

POWER UNIT

The Power Unit 9-P-6 and 9-P-3 is described on Page 79.

INPUT CIRCUIT

On early production models, a fixed condenser of .0001 MFD. capacity is used, on later production a condenser of .00005 MFD. for the input circuit.

TABLE OF VOLTAGES

The voltage readings given below were taken with the receiver turned to 550 Kilocycles, and the volume control set at maximum. When taking comparative readings, be certain that receiver is tuned to 550 kilocycles and volume control is set at maximum.

Purpose	Tube Type	A Volts	B Volts	C Volts	Cathode Volts	Normal Plate M.A.
1st R. F.	27	2.35	130	8	8	5.5
2nd R. F.	27	2.35	130	8	8	5.5
3rd R. F.	27	2.35	130	8	8	5.5
4th R. F.	27	2.35	130	9	9	5.0
Detector	27	2.35	270	30	30	1
Power	45	2.45	250	50	..	32
Power	45	2.45	250	50	..	32
Rectifier	80

Line Voltage 115 A. C.

