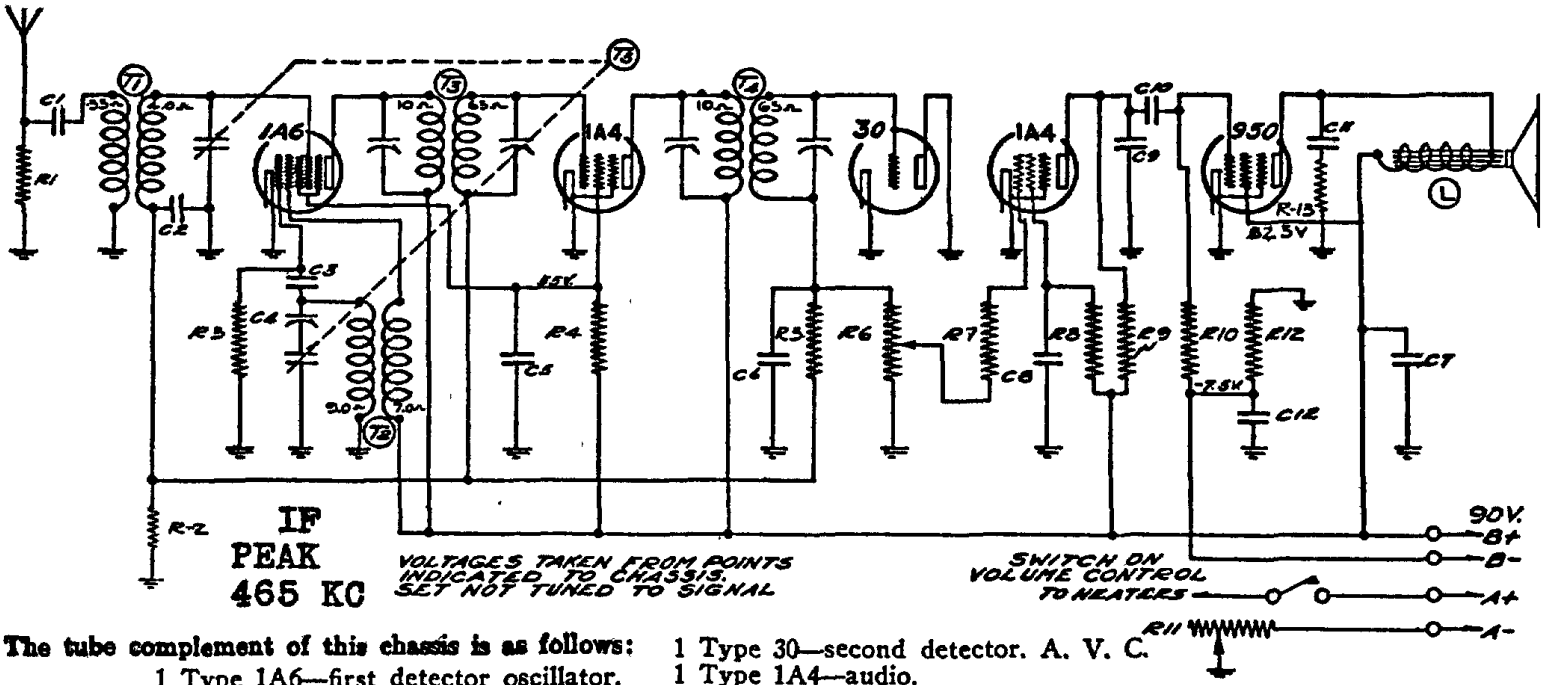
# BELMONT RADIO CORP.

MODEL 523

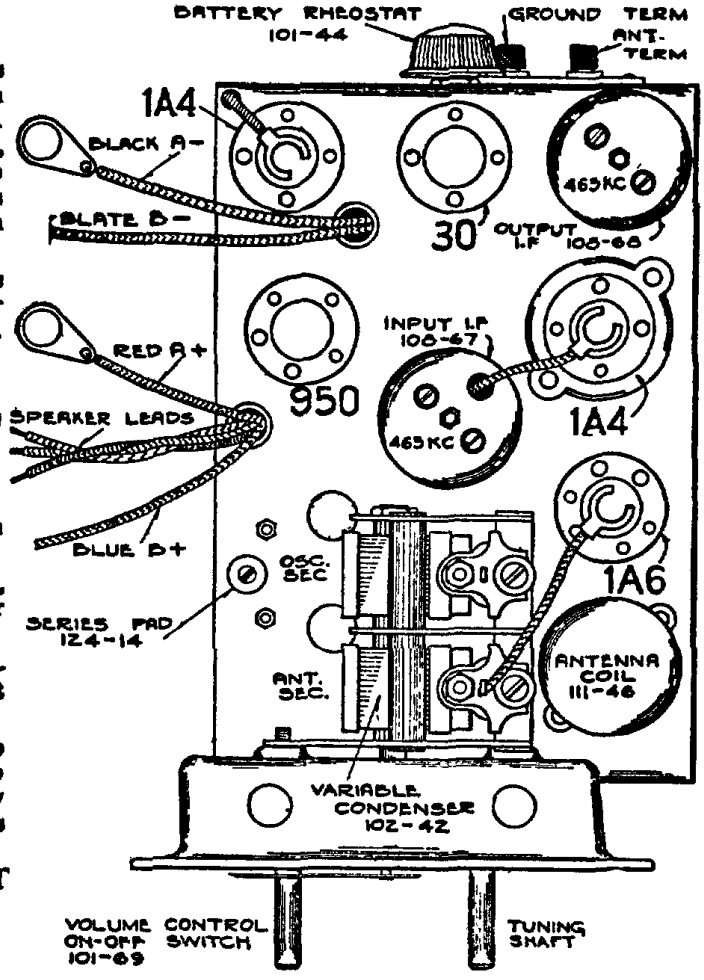



**The tube complement of this chassis is as follows:**

1 Type 1A6—first detector oscillator.
1 Type 1A4—I.F. amplifier. 465 K. C.
1 Type 30—second detector. A. V. C.
1 Type 1A4—audio.
1 Type 950—output.

| No. | Part No. | Description |
|---|---|---|
| | | **RESISTORS** |
| R1 | 130-17 | 10M Ohm - 1/3 W. - 20% - Carbon |
| R2 | 130-38 | 2 meg " - 1/3 W. - 20% - Carbon |
| R3 | 130-52 | 50M " - 1/3 W. - 20% - Carbon |
| R4 | 130-17 | 10M " - 1/3 W. - 20% - Carbon |
| R5 | 130-38 | 2 meg " - 1/3 W. - 20% - Carbon |
| R6 | 101-69 | 1 meg " - Volume Control - and Switch |
| R7 | 130-52 | 50M " - 1/3 W. - 20% - Carbon |
| R8 | 130-19 | 1 meg " - 1/3 W. - 20% - Carbon |
| R9 | 130-9 | 200M ohm 1/3 W. - 20% - Carbon |
| R10 | 130-19 | 1 meg " - 1/3 W. - 20% - Carbon |
| R11 | 101-44 | 4.75 " - Rheostat |
| R12 | 130-93 | 450 " - 1/3 W. - 10% - Carbon |
| R13 | 130-52 | 50M " - 1/3 W. - 20% - Carbon |
| | | **CONDENSERS** |
| C1 | 100-11 | .01 x 400 v. - 25% |
| C2 | 100-22 | .05 x 200 v. - 25% |
| C3 | 129-12 | .00025 Mica - MT - 20% |
| C4 | 124-14 | Series Pad |
| C5 | 100-9 | .05 x 200 v. - 25% |
| C6 | 129-5 | .0001 Mica - MT - 20% |
| C7 | 100-48 | .25 x 200 v. |
| C8 | 100-9 | .05 x 200 v. - 25% |
| C9 | 129-2 | .0005 Mica - MT - 20% |
| C10 | 100-11 | .01 x 400 v. - 25% |
| C11 | 100-11 | .01 x 400 v. - 25% |
| C12 | 119-22 | 10.0 mfd. x 25 v. - Working Volt |
| | | **PARTS** |
| T1 | 111-46 | Antenna Coil |
| T2 | 110-36 | Oscillator Coil |
| T3 | 108-67 | Input I. F. Coil - 46 kc. |
| T4 | 108-68 | Output I. F. Coil - 465 kc. |
| T5 | 102-42 | Two Gang Condenser |
| L | 114-19 | Six Inch Magnetic Speaker |

## TOP VIEW MODEL 523




## ALIGNING I.F. TRANSFORMERS: (465 K.C.)

1. With volume control full on and with variable condenser at its minimum capacity position, plates entirely out of mesh, and with external oscillator set at 465 K.C. connected in series with a .1 mfd. condenser, to the grid of the 1A6 tube (cap at top of tube), adjust I.F. transformers, parts number 108-67 and 108-68, to resonance. Both of these transformers have two (2) adjustments each, they are accessible from the tops of the cans (for location see top view).

   Use as a resonance indicator an output meter connected across the outside terminals of the speaker or by means of an adapter to the plate and screen of the type 950 output tube. Maximum deflection of the volt meter indicates resonance.

   Use only enough signal to get a readily readable output.

   A low range output meter or the low scale of a multi-range meter should be used.

## BROADCAST BAND ALIGNMENT:

1. Set external oscillator to 1720 K.C. and connect it in series with a 200 mmfd. condenser to the antenna and ground posts.
   (a) With variable condenser in its minimum capacity position, plates entirely out of mesh, adjust oscillator trimmer (rear section of variable condenser) to resonance.
   (b) Re-set external oscillator to 1400 K.C. Rotate variable condenser, pick up signal and adjust antenna trimmer (front section of variable condenser) to resonance.
   (c) Re-set external oscillator to 600 K.C., move dial pointer to 600 K.C., and adjust series pad, part number 124-14 (see top view), to resonance. While making this adjustment, slowly rock variable condenser to and fro until maximum output is obtained.
   (d) Check for sensitivity at 1400, 1000, 600 K.C. DO NOT BEND PLATES.