

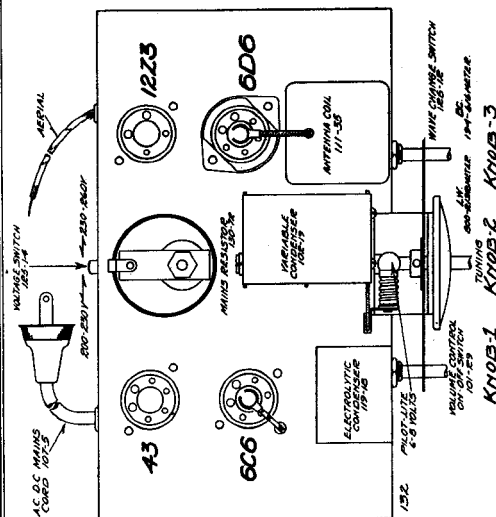
Belmont Radio Corp.

Belmont Radio Corp.			
	Model: 444	Chassis:	Year: Pre November 1935
	Power:	Circuit:	IF:
	Tubes:		
	Bands:		
Resources			
Riders 6 (VI) BELMONT 6-5			
Riders 6 (VI) BELMONT 6-6			

BELMONT RADIO CORP.

MODEL 444

Schematic, Voltage Socket, Chassis



SPEAKERS

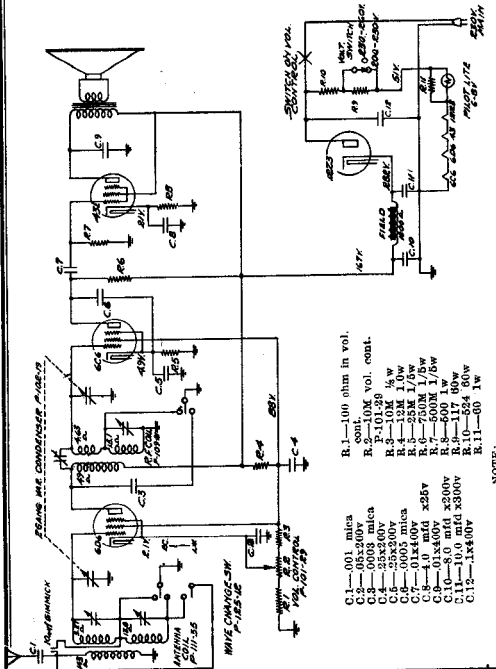
114-23 Five Inch Dynamic

MISCELLANEOUS

[illegible]

All resistors and mica condensers are RMA color coded—specify value and/or resistor or condenser (per schematic diagram) and model number.

Mica condensers are coded with an additional dot indicating tolerance:



NOTE:

C.4 and C.5 in one unit—P.118-5

C.8, C.10, C.11 in one unit—P-119-18

R.9 and R.10 in one unit—P-130-72
R.9 R.11 in one unit—P-108-22

R.8. R.1.1 in One Unit
Voltages taken from points indicated to

chassis ground.

Vol. control on full. Line voltage switch at 230-240 v. position.

Numbers prefixed by letter "P"

Serial No. 5G130820A and up.

VOTE: _____ P.# or Receipt #105

NOTE:—Buffer resistor (100-250) or 500 ohms in series with cathode of 12Z8 tube not shown on diagram.

REPAIR PARTS LIST—MODEL 444

Serial No. 5G130820A and up

RESISTORS

106-22	500-80	Ohm-1	Watt-Candohm Resistor Strip	100-1
106-24	300	Ohm- $\frac{1}{2}$	Watt-Metal Glad Resistor	100-31
130-1	25M	Ohm- $\frac{1}{2}$	Watt-20% 8 Volts Carbon	118-9
130-2	500M	Ohm- $\frac{1}{2}$	Watt-20% 8 Volts Carbon	118-19
130-17	300	Ohm- $\frac{1}{2}$	Watt-20% 50 Volts Carbon	129-1
130-18	700M	Ohm- $\frac{1}{2}$	Watt-20% 50 Volts Carbon	129-2
130-19	12M	Ohm-1	Watt-20% 100 Volts Carbon	129-26
130-20	441	Ohm	Vitreous Resistor	129-36

STICK

109.21 R.F. Coil and Trimmer Assembly Complete
111.35 Antenna Coil Complete with Can

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MODEL 444
Alignment
Notes

BELMONT FOUR TUBE TWO-BAND RECEIVER

Model 444

Tuning Range

194—616 Meters

800—2136 Meters

TUBE COMPLEMENT:

- 1 6D6—Super control R.F. pentode as R.F. Amplifier.
- 1 6C6—R.F. pentode as second detector.
- 1 43E—Special pentode output amplifier.
- 1 12Z3—Rectifier.

POWER INPUT:

This receiver is designed for A.C. (any frequency) and D.C. operation over a range of 200-260 V. A line voltage switch is provided for operation from 200 to 230 and from 230 to 260 volts. The switch is mounted on the back flange of the chassis and the proper position is indicated by stamping the chassis with the voltage ranges. Chassis are sent from the factory in the high voltage position. In order to change the switch position, it is necessary to remove the back of the cabinet.

In case it is desired to use the receiver on 110 V. A.C. it is necessary to use a 110 to 220 volt transformer, having a power capacity of approximately 80 watts.

ALIGNMENT

No aligning adjustments should be attempted without first thoroughly checking over all other possible causes of trouble, such as poor installations, open or grounded antenna systems, low line voltages, defective tubes, condensers and resistors. In order to properly align this chassis, an oscillator (generator) is absolutely necessary. No aligning adjustments should be attempted with the chassis in the cabinet. To remove the chassis, pull knobs off, remove the three bolts by which chassis is fastened and the speaker plug which you will find on the rear flange of the chassis panel.

RESONANCE INDICATOR:

Use as a resonance indicator an output meter connected across the primary of the speaker input transformer, or by means of an adapter between the plate and screen terminals of the type 43E output tube. Maximum deflection of the 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 volt-meter should be used.

DUMMY ANTENNAS:

- Dummy (1)—Consists of 1 mfd. condenser in series with the ungrounded lead of the external oscillator.
- Dummy (2)—Consists of 100 mmf. condenser in series with the ungrounded lead of the external oscillator.

TEST FREQUENCIES:

	Meters	Kilocycles
Long Wave Band	2000	150
	1200	250
	857.1	350
	800	375
Broadcast Band	500	600
	300	1000
	214.3	1400
	193.4	1550

ALIGNMENT BROADCAST BAND:

1. Turn wave band switch to broadcast position (clockwise rotation).
2. Connect external oscillator to antenna lead through dummy (2) and set to 193.4 M.
3. Open condenser plates all the way (completely out of mesh) and align all broadcast trimmers:
 - (a) Lower hole in B.C. antenna coil shield (111-35). See top view.
 - (b) Trimmer on R.F. coil nearest end of chassis.
4. Set external oscillator to 214.3 meters. Tune in signal with receiver and realign broadcast antenna coil (3a) while rocking gang condenser to and fro until maximum output is obtained.
5. Check sensitivity and tracking at 300 and 500 meters.

ALIGNMENT LONG WAVE BAND:

1. Turn switch to long wave position (counter-clockwise).
2. Clip external oscillator on R.F. grid through dummy (1) and set at 800 meters.
3. With plates of variable condenser completely out of mesh, adjust long wave R.F. trimmer for maximum output:
 - (a) Trimmer on R.F. coil (No. 100-21) toward center of chassis.
4. Clip external oscillator on to antenna lead through dummy (1) and set at 857.1 meters.
5. Tune receiver to signal and adjust long wave antenna trimmer for maximum output:
 - (a) Upper hole in antenna coil (No. 111-35) can.
6. Check tracking and sensitivity at 1200 and 2000 meters.

SERVICE NOTES

To check for open by-pass condensers, shunt each condenser with another of similar capacity and of the same voltage rating, which is known to be good, until the defective unit is located. Open by-pass condensers frequently cause oscillation and distorted tone. Defective and shorted electrolytic filter condensers cause excessive hum, motor-boating, low volume and a reduction in all D.C. voltages. Open or shorted electrolytic and by-pass condensers (across bias resistor of type 43E tube) will cause low volume and distorted tone.

Voltages taken from different points of circuit to chassis are measured with volume control full on, all tubes in their sockets and speaker connected, with a voltmeter having a resistance of 1000 ohms per volt. These voltages are clearly indicated on the circuit diagram.

All voltages are measured with 230 volt mains and the switch in the 230-260 volt position.

Resistance of coils and transformer windings are indicated in ohms on schematic circuit diagram.