

## Altec Lansing Corp.

**Model:** 101B

**Chassis:**

**Year:** Pre 1951

**Power:**

**Circuit:**

**IF:**

**Tubes:**

**Bands:**

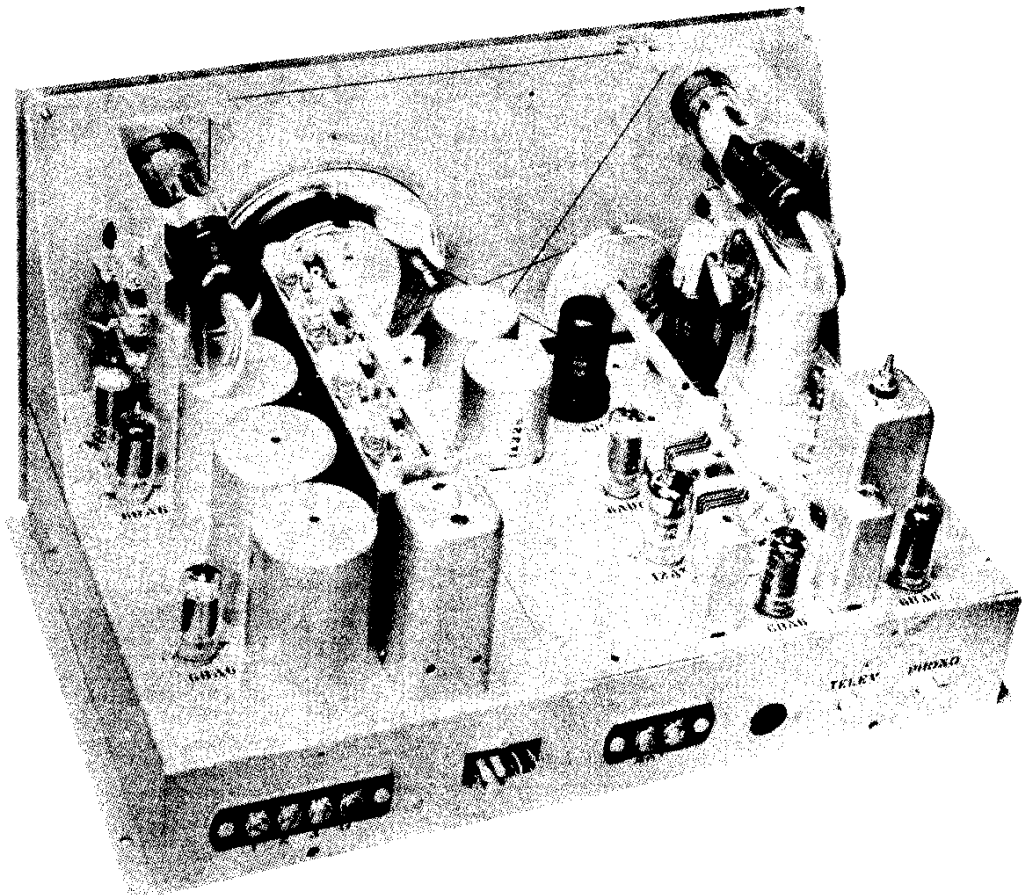
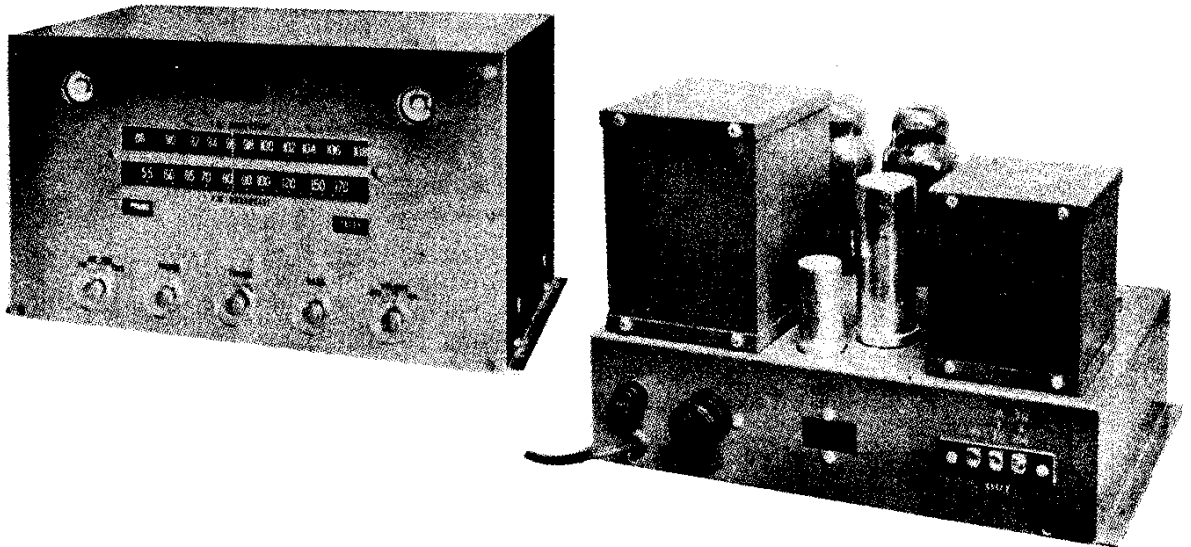
### Resources

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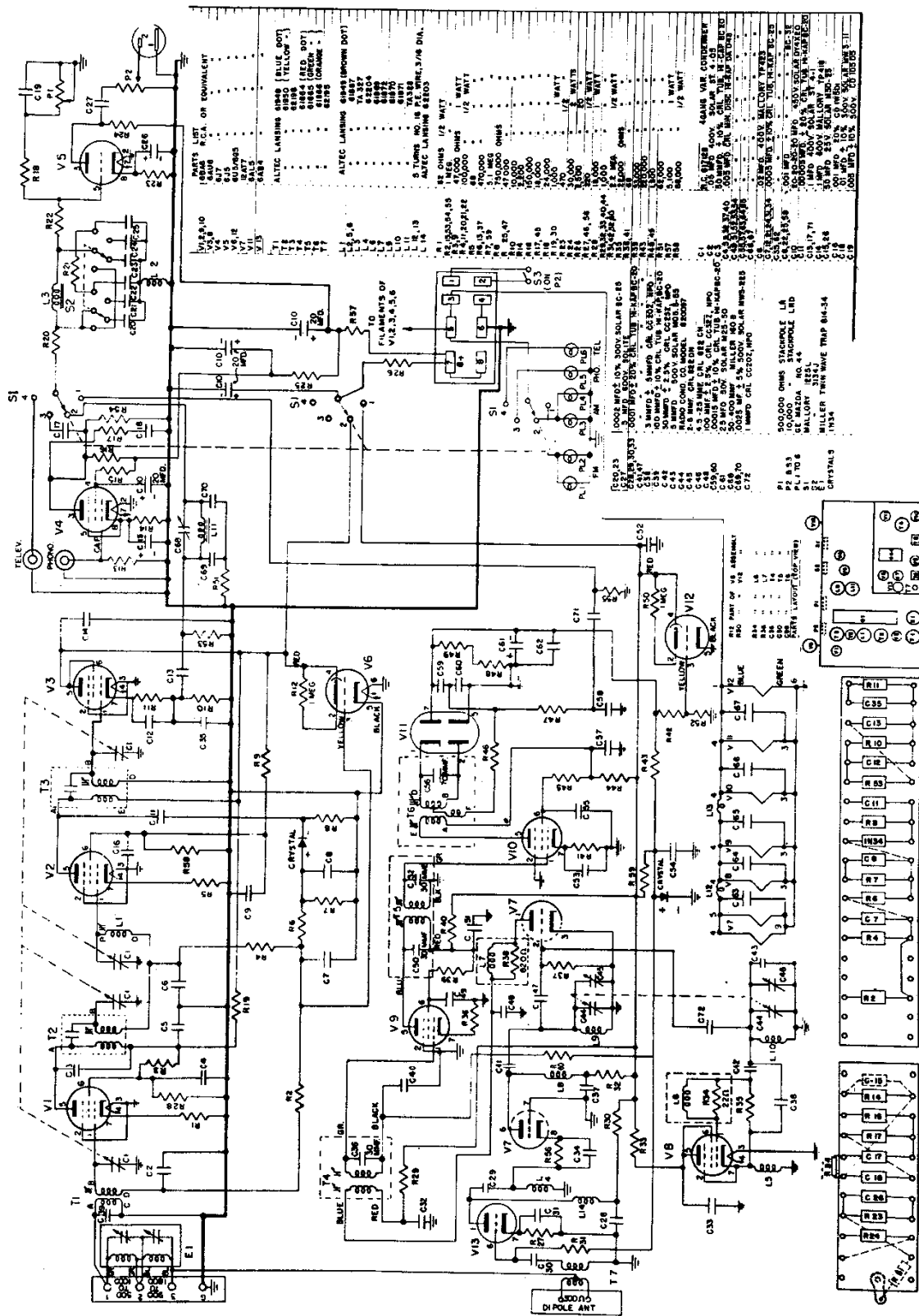
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MODEL 101B,  
Tuner



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MODEL 101B,  
Tuner



(1) The FM Tuner employs six miniature tubes. The antenna is coupled to the RF stage through a broad band transformer having a high degree of balance. The RF stage consists of a 6AB4 tube and one half of a 12AT7 tube connected in "cascode". A 6AU6 tube is employed as a separate oscillator, the voltage being injected into the grid circuit of the second half of the 12AT7 tube, which operates as a mixer. Two stages of IF amplification, having a frequency of 10.7 megacycles, use 6BA6 tubes. The output of the second IF stage feeds the ratio detector which incorporates a 6AL5 tube. Delayed AVC gives good small signal sensitivity and is applied to the RF and first IF stages. The modified cascode circuit, a wartime "radar" development which is used as the RF amplifier, produces high signal gain with very low noise. The balanced antenna transformer, used as the coupling medium into this stage, gives a high degree of rejection to unwanted interference signals picked up by the antenna lead-in. The triode mixer is used since it has high gain and low noise compared to a pentagrid converter. Accurate tuning is aided by the use of a 6U5/6G5 electron tuning indicator. A half wave dipole antenna, having an impedance of 300 ohms is supplied with a sixty foot transmission cable. Maximum sensitivity of this unit is 5.5 microvolts with a quieting sensitivity of 12 microvolts.

(2) The AM Tuner covers the band of 514-1740 kilocycles. It is of the tuned radio frequency type, employing two 6AU6 type tubes in two stages. Complex coupling networks are used between the various networks to provide nearly constant gain and band width. The detector is of the infinite impedance type and the audio output is obtained across a portion of the cathode resistance. A.V.C. is obtained by means of a 1N34 Crystal and is applied to both RF stages. A separate 6U5/6G5 Electron Tuning Indicator is used as an AM tuning indicator. A dual wave trap is provided at the input of the AM section, and is inserted by means of a link on the antenna terminal strip. One section of the trap covers the range from 500-1000 kilocycles. The second section covers the range from 900-1800 kilocycles. This trap provides optional attenuation at any portion of the band so that the signal from a strong interfering local station may be reduced to a point where other weaker stations may be received without interference.

(3) A single stage audio amplifier is provided with the necessary equalization for using a variable reluctance or similar type phonograph pickup. A four position selector switch is supplied to switch between AM-FM, phonograph, and an external connection which is labeled television. This high impedance, low gain input is intended for the audio portion of television, magnetic reproducer, or similar use. After the selector switch there is a bass tone control which gives a range of 15 db variation at 100 cycles. Immediately following the bass boost circuit is a treble tone control having four positions:

- Position 1 provides flat response.
- Position 2 inserts an 8 KC low pass filter.
- Position 3 changes the low pass filter to 6000 cycle cut-off.
- Position 4 provides 4000 cycle cut-off.

A sharp 10 KC dip filter is provided on the AM audio output so as to remove the heterodyne whistle of interfering stations. Immediately following the tone controls is a single-stage 6J5 audio output stage.

Model 101B Tuner dimensions: 15 inches wide  
 9 $\frac{1}{2}$  inches high  
 11 $\frac{1}{2}$  inches deep (Chassis 10 inches deep;  
 plus protrude 1 $\frac{1}{2}$  inches out of rear)

(4) The A-323C amplifier is a separate unit and consists of a pentode connected input stage, a phase inverter, and push-pull 6L6 stages with an output transformer having taps covering the range from 2.5-24 ohms. The output of the A-323C amplifier provides 15 watts with less than 8% intermodulation, and approximately 2% total harmonics at 60 cycles. This amplifier supplies the plate, filament, and pilot lamp power for the tuner chassis. Two interconnecting cables are provided for the power and speech circuits between the amplifier and tuner.

Model A-323C Amplifier  
 dimensions: 13 inches wide  
 8 $\frac{1}{2}$  inches high  
 9 inches deep

(5) Where average to strong signals are available, the FM dipole antenna can be used for both FM and AM by proper strapping on the terminal board. Where weak AM signals are available, it is recommended that a separate 10-30 foot antenna be used on AM.