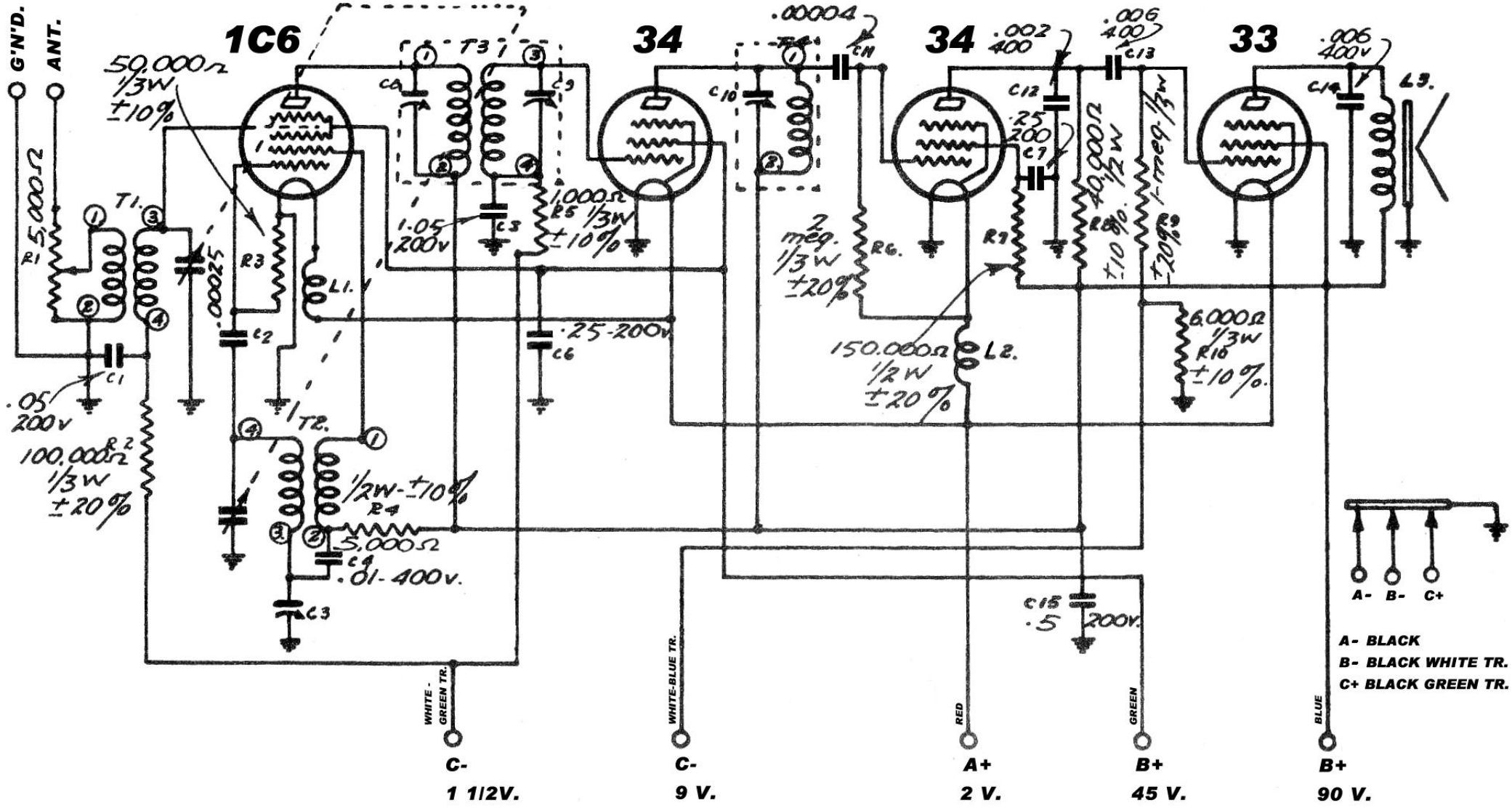


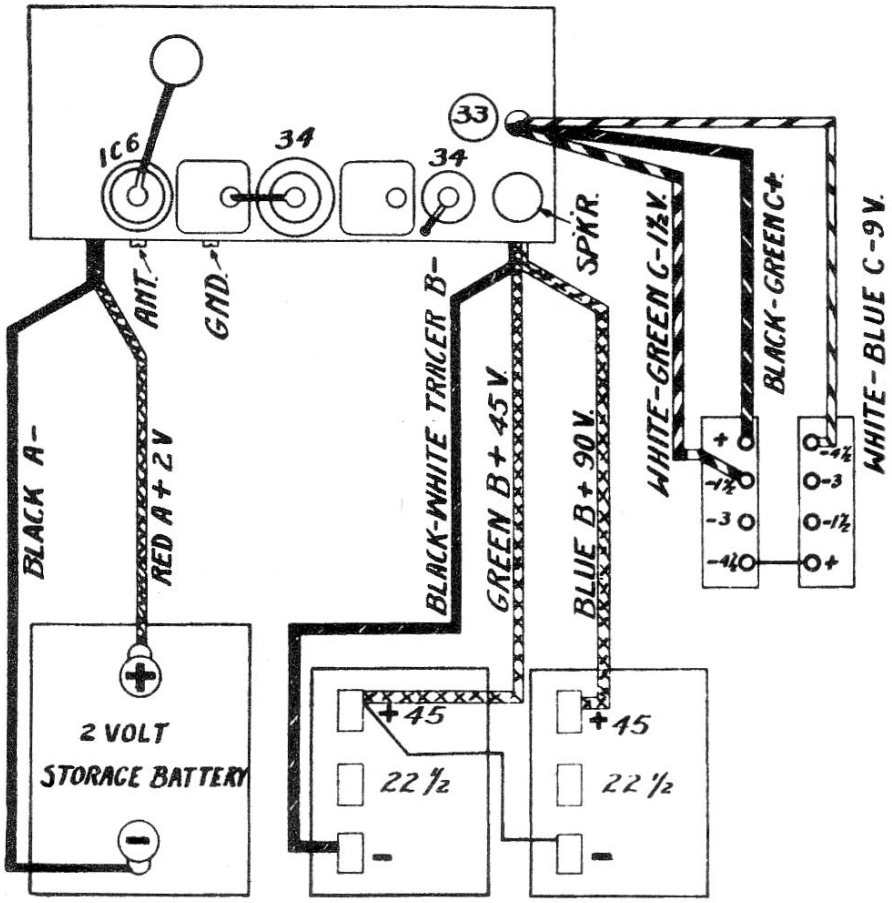
Phonola -

Electrohome Series 5B40 & 5B40-1

RCC - Phonola Data Sheet 23 (Right) - 1935-36

Electrohome Series 5B40 & 5B40-1

Radio Alignment & Circuit Information



RCC - Phonola Data Sheet 24 (Upper) - 1935-36

CIRCUIT

The circuit consists of a single tuned antenna stage which couples directly into a type 1C6 tube, which functions as oscillator and first detector. The oscillating circuit is tuned by the second section of the gang condenser and is always resonant at a frequency of 456 kilocycles above the frequency to which the R.F. amplifier is tuned.

One stage of I.F. amplification is employed, using a type 34 tube. The primary and secondary circuit is provided with variable trimmers for adjustment at 456 k.c. A second I.F. unit of the impedence coupled type is provided, in which the primary inductance is tuned by means of a small trimmer condenser located inside the of I.F. shield.

A type 34 tube is employed as second detector or demodulator. Demodulation takes place in the grid circuit of this tube.

Resistance coupling is used between the second detector and the 33 Pentode audio power amplifier. The output of the 33 is coupled to a magnetic reproducer.

The volume control is in the antenna primary circuit and varying the position of the arm of the control varies the signal input voltage to the type 1C6 tube.

The small trimmers on the top of the gang are provided for the purpose of aligning the receiver at 1,500 k.c. and the padding condenser provided for tracking the oscillator at 600 k.c.

The receiver is of the extended band type, being calibrated from 528 to 1,850 k.c., which includes a police short wave and amateur band at the high frequency end.

The total "A" drain is 500 millamperes, which is one-half ampere at two volts.

The average "B" drain of this receiver is 16 milamperes at 30 volts.

BATTERIES

This receiver is designed for operation with a two-volt storage wet cell "A" battery; two 45-volt "B" batteries connected in series to supply the plate potential of 90 volts; and two "C" batteries of 4½ volts each, supplying the bias for the R.F. and A.F. amplifiers.

CONDENSER ALIGNMENT

Procedure of Aligning Set

Couple the output of a test signal generator to the grid of the 1C6 tube through a .05 paper condenser and set your generator at 456 k.c. with as low output as is possible, so that you may just hear it; then adjust the three trimmer adjustment screws located on the inside of the I.F. shields until maximum output is obtained from the set. Next, couple the signal generator to the antenna, setting the receiver dial at 1,500 k.c. and adjust the signal generator to exactly 1,500 k.c., adjusting the screws on the top of the gang for maximum output. Adjust the generator to 600 k.c. and turn the dial to 600 k.c. Slightly rock the gang forward and backward, at the same time adjusting the padder condenser, (which is marked C-3 on the diagram) until maximum sensitivity is secured. Now ajust the pointer to exactly 600 on the dial and return both generator and gang to 1,500 k.c., again re-adjusting the screws for maximum output. Your set should now be at maximum sensitivity and tracking correctly over the entire dial.