Models 60, 60A

Radio Receivers

Specifications

Frequency Range:

Broadcast

I.F.:

175 k.c.

Tubes:

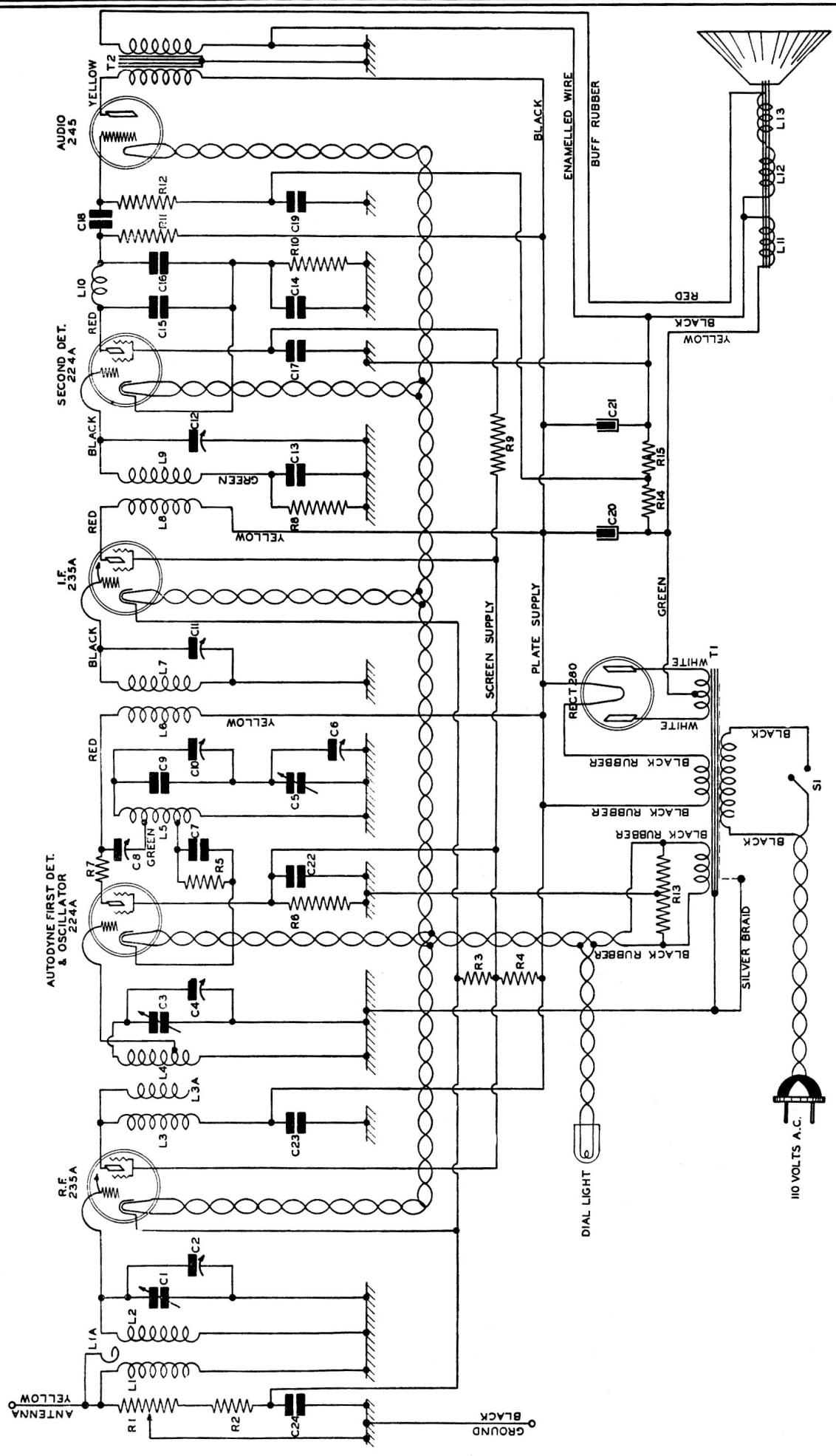
Type	Position
235A	R.F. Amplifier
224A	1st Detector & Oscillator
235A	I.F. Amplifier
224A	2nd Detector
245	Power Output
280	Full Wave Rectifier

Power Supply:

Model 60—105 to 125 volts A.C. 60 cycles
Model 60A—105 to 125 volts A.C. 25 cycles

Controls:

Left—A.C. switch and volume control
Right—Tuning



Schematic Diagram Model 60 and 60-A Receiver

NOMENCLATURE

C-1, C-1, C-3, C-5 Ganged — Tunes R.F. transformer secondary; Tunes Interstage secondary; Tunes Oscillator Coil — See paragraph under "General Details" for values.

C-2 Trimmer for C-1 (1400 KC par. Pad Antenna).
C-4 Trimmer for C-3 (1400 KC par. Pad Interstage).
C-6 Trimmer for C-5 (1400 KC par. Pad Oscillator).
C-7 Autodyne Cathode By-Pass .002 mfd. (Mica).
C-8 Trimmer (175 KC) Primary 1st Trans. I.F. amp.
C-9 Fixed oscillator series Pad (.000855 mfd.)
C-10 Trimmer for C-9 (600 KC Aligning position)
C-11 Trimmer (175 KC) secondary 1st trans. I.F. amp.
C-12 Trimmer (175 KC) secondary 2nd trans. I.F. amp.
C-13 By-Pass Condenser (for overload ballast resistor R-8) (.02) 200 V.
C-14 2nd Detector Cathode By-pass Condenser .5 mfd.
C-15 2nd Detector plate By-pass condenser .0002 mfd. (Mica)
C-16 R.F. Choke By-Pass Condenser .0001 mfd. (Mica)
C-17 2nd Detector Screen By-pass Condenser .1 mfd. (Paper)
C-18 Audio Coupling Condenser .05 mfd.
C-19 Audio De-Coupling condenser .05 mfd.
C-20 Filter Condenser Electrolytic 8 mfd.
C-21 Filter Condenser Electrolytic 8 mfd.
C-22 Screen By-pass Condenser (3 paper), 1.0 mfd.
C-23 Plate By-pass Condenser (3 paper) .05 mfd.
C-24 R.F. & I.F. Cathode By-pass Condenser .05 mfd. (2 paper)

R-1 Volume control 0-10,000 ohms; fixed portion R-2 164 ohms.
R-2 âR.F. & I.F. cathode bias contained in control.
R-3 Bleeder Resistor 21,000 ohms.
R-4 Main Screen Resistor—21,000 ohms.
R-5 Autodyne Cathode biassing resistor—9,400 ohms.
R-6 Screen voltage suppresser resistor, 70,000 ohms.
R-7 H.F. Stabilizing resistor—835 ohms (Plus 20%—minus 10%)
R-8 Grid Ballast Resistor—550,000 ohms.
R-9 2nd Detector Screen Resistor—250,000 phms.
R-10 2nd Detector Cathode biassing resistor—50,000 ohms.
R-11 2nd Detector plate resistor—400,000 ohms.
R-12 Grid coupling resistor—900,000 ohms.
R-13 Fil. return centre tap resistor—20 ohms.
R-14 Divider Resistor—500,000 ohms.
R-15 Audio Bias Resistor—550,000 ohms.

L-1 Antenna Coil Primary R.F. Transformer.
L-1-A "Truby" Coupling Coil.
L-2 Secondary R.F. Transformer.
L-3 Primary Interstage transformer.
L-3-A "MacDonald" primary coupling coil.
L-4 Secondary Interstage transformer (including image rejector circuit).
L-5 Oscillator Coil.
L-6 Primary Coil 1st transformer I.F. Amplifier.
L-7 Secondary coil 1st transformer I.F. Amplifier.
L-8 Primary (Untuned) 2nd transformer I.F. Amplifier.
L-9 Secondary Coil 2nd transformer I.F. Amplifier.
L-10 R.F. Choke Coil.
L-11 Loudspeaker field.
L-12 Hum-bucking coil.
L-13 Voice coil.

T-1 Power transformer.
T-2 Output transformer.

S-1 Main switch fitted to volume control.

IMPORTANT NOTE: On all Model 60 and 60-A receivers having serial numbers from 1051 to 1475 the above final nomenclature does not hold. The first 424 Model 60 receivers differed from the above in the following particulars:

R-6 Delete—was not used on first 424 sets.
R-10 Was 70,000 ohms instead of 50,000 as at present.
R-7 Was 1000—now 835 (Plus 20%, minus 10%).
C-15 & C-16 C-15 was .0003 with C-16 omitted.
R-5 Autodyne cathode biassing Resistor. Tolerance previously 10%. Now closed up at 5%.

REALIGNING DETAILS:—

I.F. TRANSFORMERS:—

(a) Connect ground from external oscillator to chassis.
(b) Connect output lead from external oscillator to control grid terminal on autodyne tube.
(c) Set external oscillator to 175 KC.
(d) Align C-12, C-11, C-8.

OSCILLATOR:—

1 (a) Set external oscillator and dial to 1400 KC.
(b) Connect output lead of external oscillator to antenna lead of chassis.
(c) Align C-6, C-4, C-2. (After alignment C-6 screw should have position almost whole way out.)
2. (a) Adjust external oscillator and receiver to 600 KC
(b) Align C-10 oscillator series pad.