

# RAYCOPHONE "63AB"

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## OPERATING VOLTAGES

The following measurements were made with a "1,000 ohms per volt" meter between chassis and the socket contact indicated. The receiver was tuned to a point of no signal and the volume control was full on.

**6A7, Frequency Converter:** Plate, 157 v.; screen, 50 v.; cathode, 1.5 v.; osc. anode grid, 157 v. Total cathode current, 6 mA.

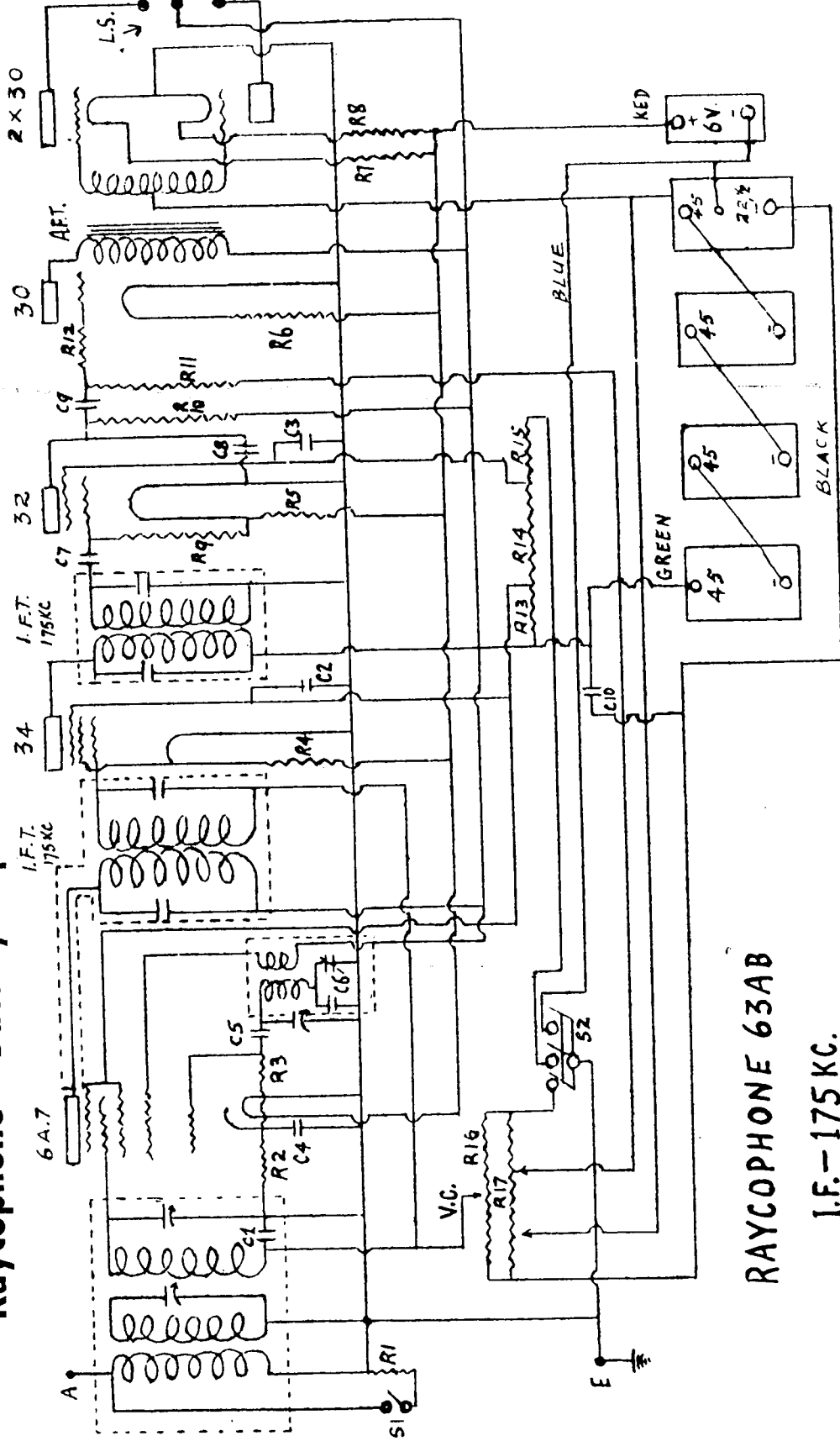
**34, 175 kC. I.F. Amplifier:** Plate, 157 v.; screen, 50 v.; grid, zero. Plate current, 3.5 mA.

**..32, "Leaky-Grid" Detector:** Plate, 35 v.; screen, 20 v.; grid, filament +. Plate current, 0.3 mA.

**30, A.F. Driver:** Plate, 154 v.; grid, -9 v. (at source). Plate current, 4 mA.

**30 (two) Class "B" Output Stage:** Plate, 155 v.; grid, -14 v. Plate current (each), 0.5 mA.

# "Raycophone" Battery Operated Broadcast Console Model 63AB



## RAYCOPHONE 63AB I.F.—175 KC.

Raycophone model "63AB" is a six-valve receiver designed for broadcast coverage and operation from battery power supplies. This receiver is of the console type and is fitted with four controls, these being for volume, tuning, battery switching (3-circuit), and local/distance switching (two-way, shorts 30 ohms resistor across aerial coil). The loudspeaker is an 8-inch, permanent-magnet, unit with a plate-to-plate transformer impedance of 8,000 ohms. This model was marketed during 1933.

Power supply for this receiver is obtained from a six-volt accumulator ("A")

and four series-connected 45 v. dry batteries ("B" and "C"). Bias voltages are obtained from a tapped resistor (R17) shunted across the first 22.5 v. of the "B" battery. Volume control is effected by means of a potentiometer shunted across the same section of the "B" battery. Attention should be paid to the fact that although a 6-volt "A" supply is used, no attempt is made to reduce the "A" drain by series-parallel wiring of the two-volt filaments. Instead, each of these valve filaments has its own independent series resistor.

### COMPONENT VALUES

#### RESISTORS.

R1—30 ohms, W.W.; R2—250 ohms, W.W.; R3, R13, R14—25,000 ohms, carb.; R4, R5, R6, R7, R8—66 ohms, 60 m.A., W.W.; R9—2.0 meg., carb.; R10—0.25 meg., carb.; R11—1.0 meg., carb.; R12—0.1 meg., carb.; R15—10,000 ohms, carb.; R16—100,000 ohms, vol. cont.; R17—1,500 ohms, bias divider.

#### CONDENSERS.

C1, C2, C3, C4—0.1 mfd., paper; C5—0.0002 mfd., mica; C6—0.0006 mfd., 5% mica and var. shunt; C7—0.00025 mfd., mica; C8—0.0005 mfd., mica; C9—0.01 mfd., paper; C10—1.0 mfd., paper.

(Operating voltages will be found on page 341)