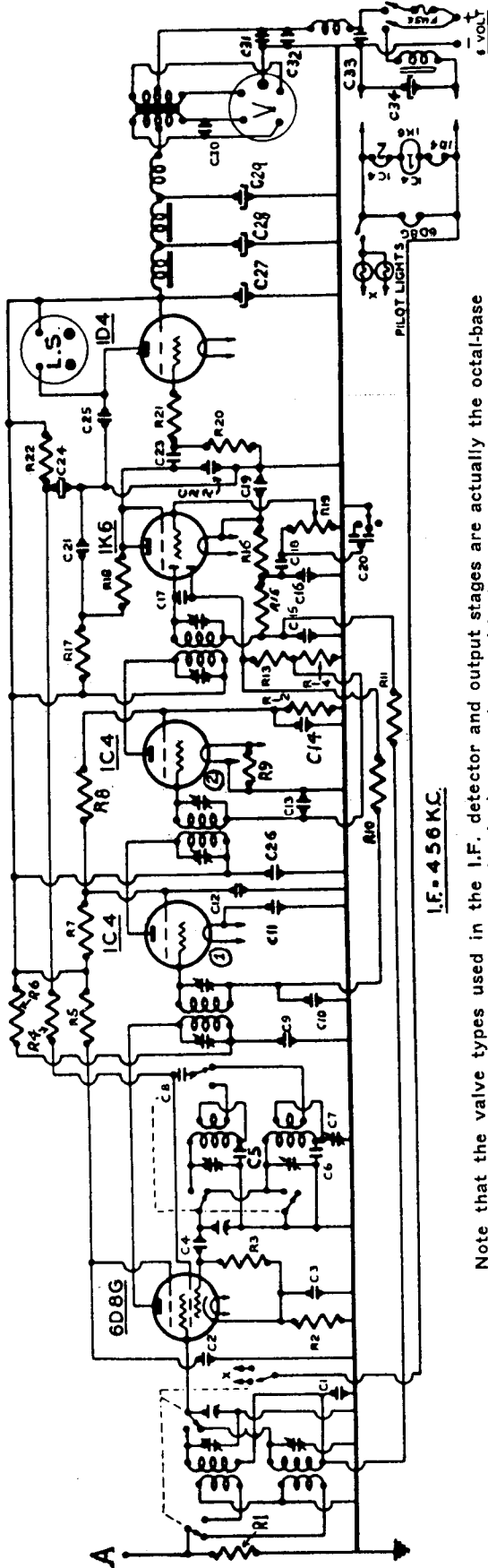


"Mullard" Vibrator-Powered Dual-Wave Console Model 82



I.F. = 456 KC.

Note that the valve types used in the I.F. detector and output stages are actually the octal-base equivalents of the types shown on the circuit, in accordance with the type numbers listed below.

COMPONENT VALUES

RESISTORS.

- R1—10,000 ohms, ½ W.; R2—540 ohms, ½ W.; R3, R15—100,000 ohms, ½ W.; R4, R8, R17—10,000 ohms, ½ W.; R5—20,000 ohms, ½ W.; R6, R22—5,000 ohms, ½ W.; R7—50,000 ohms, ½ W.; R9—16.5 ohms, w.w.; R10, R11—1 megohm, ½ W.; R12—30,000 ohms, ½ W.; R13, R14, R16, R20—500,000 ohms, ½ W.; R18—100,000 ohms, ½ W.; R19—500,000 ohms, volume control; R21—50,000 ohms, ½ W.

CONDENSERS.

- C1, C10, C11, C13, C19—0.05 mfd., 400 v., paper; C2, C3, C9, C12, C14, C21, C26—0.1 mfd., 400 v., paper; C4, C17—50 mfd., mica; C5—7,025 mfd. ± 1%, mica, S.W. padder; C6—300 mfd. ± 3%, mica, B.C. padder shunt; C7—3 plate B.C. padder; C8—

- 500 mfd., mica; C15, C16, C22—250 mfd., mica; C18, C23—0.01 mfd., 400 v., paper; C20—0.001 mfd. and 0.004 mfd. two section condenser, for tone control; C24—8 mfd., electro.; C25—2,000 mfd., mica; C27, C28, C29—8 mfd., 500 v., electro.; C30—0.01 mfd., 1,500 v. test; C31—0.01 mfd., mica; C32—0.5 mfd., 400 v.; C33—100 mfd., mica; C34—500 mfd., low voltage electro.

OPERATING VOLTAGES.

The following measurements were made with a "1,000 ohms per volt" meter between chassis and the socket contact indicated. Exceptions to this are provided by the grid voltages for the filament-type valves, these being measured between each valve's negative filament contact and the point to which that valve's grid is returned.

- 6D8G, Frequency Converter: Plate, 120 v.; screen, 65 v.; cathode, 4 v.; osc. anode

- grid, 85 v. Plate current, 2.3 mA.; screen current, 3.6 mA.; osc. anode current, 2 mA.
- 1M5G, 1st stage 456 KC. I.F. Amplifier: Plate, 135 v.; screen, 50 v.; grid, 2 v. Plate current, 0.6 mA.; screen current, 0.1 mA.
- 1M5G, 2nd stage 456 KC. I.F. Amplifier: Plate, 135 v.; screen, 35 v.; grid, zero. Plate current, 0.8 mA.; screen current, 0.25 mA.

- 1K7G, Detector, A.V.C. Rectifier and A.F. Amplifier: Plate, 60 v.; screen, tied to plate; grid, 2 v. Combined plate and screen current, 0.6 mA.

- 1L5G, Output Pentode: Plate, 125 v.; screen, 135 v.; grid, 4 v. Plate current, 6 mA.; screen current, 1.3 mA.

Total current from H.T. unit under "no signal" conditions approx 20 mA. Total current from accumulator with dial lamps switched off, approx. 1.15 A.

MULLARD 1938 CONSOLE MODEL 82

Uses 8-inch diameter, permanent-magnet loudspeaker.

Note use of 6-volt heater valve in frequency converter socket.