ZENITH "ROYAL 125" Chassis 6JT40Z1

General Description: Six-transistor (plus two crystal diodes), medium-waveband, portable receiver. Models covered by this information include Royal 125C, Royal 125P, Royal 125L and Royal 90. Chassis **6JT41Z1** is also similar, except for two section variable capacitor and a few minor differences.

Power Supply: 1·5 + 1·5-volt battery (two 1·5-volt penlight cells or two 1·34-volt mercury cells). No-signal consumption about 11 mA.

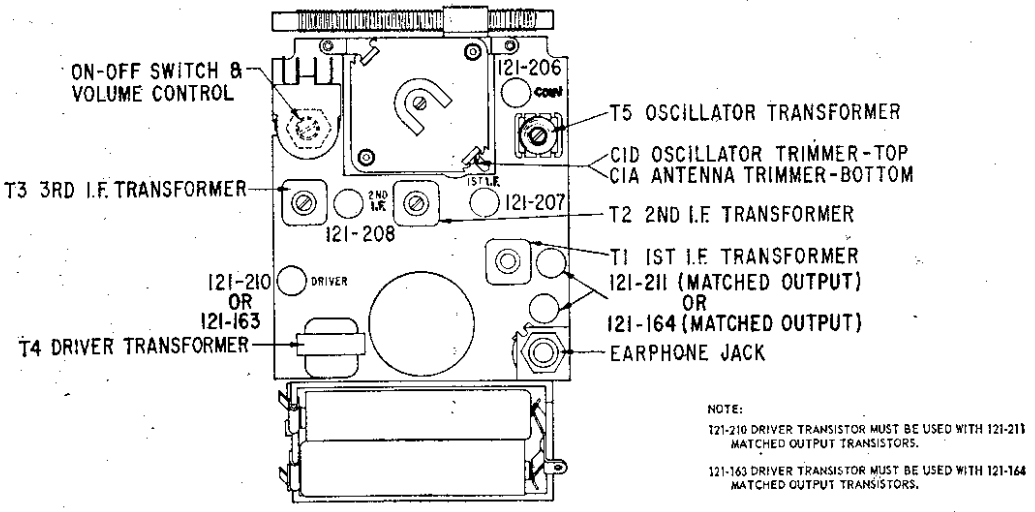
Waveband: M.W. 540–1600 kc/s.

Transistors: All *p-n-p* types. Transistor coding shown on circuit diagram indicates the Zenith designations. Transistors fitted are Texas Instrument types except for alternative A.F. types (121–163 and 121–164) which are R.C.A. Zenith crystal diode designations: (X1) 103–19 (A.G.C. damping diode) and (X2) 103–19 (detector).

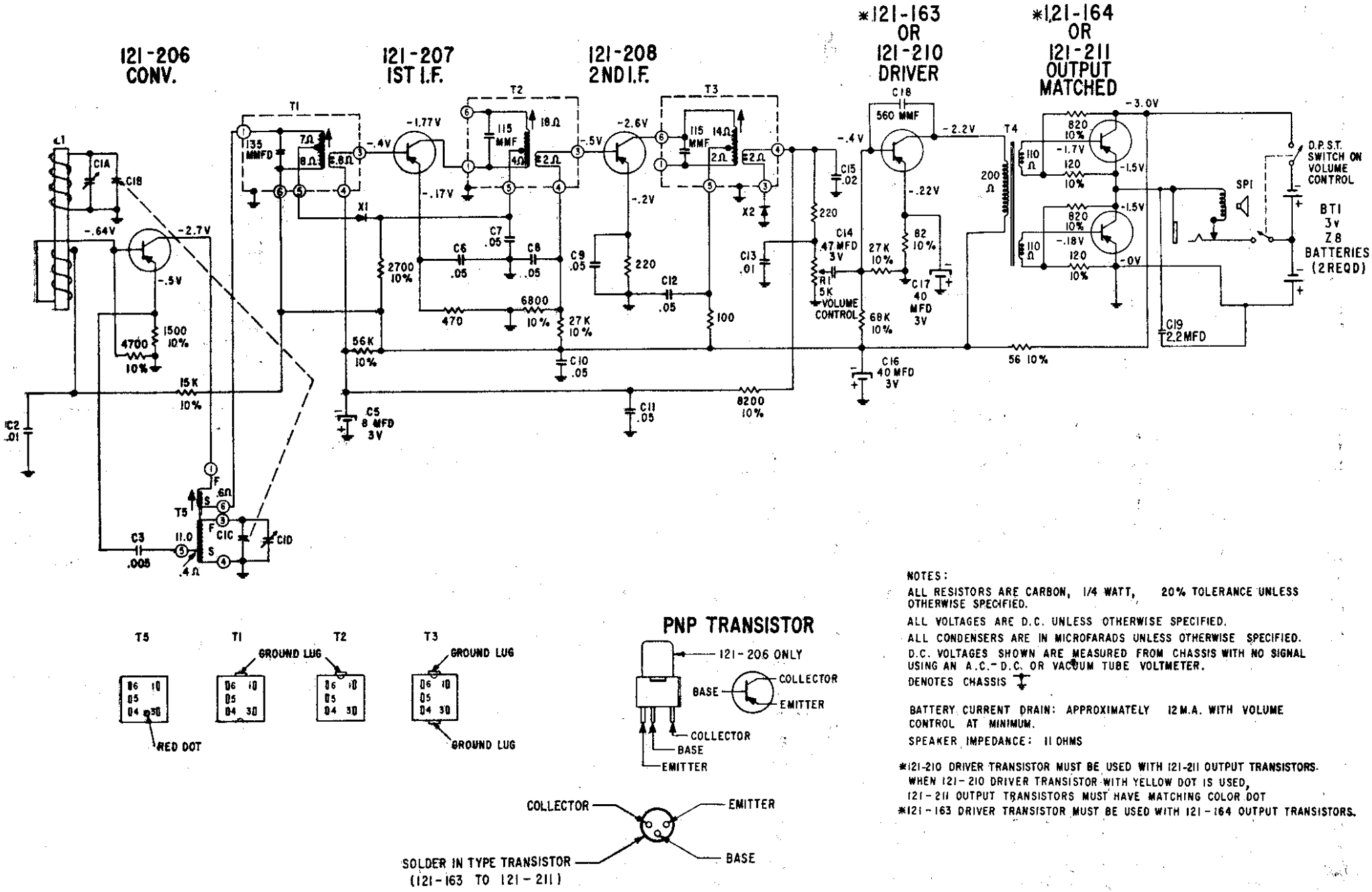
Alignment Procedure: Signals are injected via one turn coil loosely coupled to rod aerial with outer shield connected to chassis via isolating capacitor.

Operation	*Input Frequency (kc/s.)*	*Set Dial at (kc/s.)*	*Adjustment*	*Purpose*
1	455	600	T3, T2, T1	I.F. alignment
2	1620	gang fully open	C1D	To set oscillator to dial scale
3	600	near 600	Core T5	Adjust for maximum output while rocking gang regardless of dial accuracy
4	1260	1260	C1A	To align rod aerial
5			Repeat 2, 3, 4	

Notes: Speaker impedance 11 ohms at 1000 c/s. Undistorted power output 80 mV. Sensitivity 250 μV./metre for 25 mW. output.



COMPONENT PANEL LAY-OUT



NOTES:

ALL RESISTORS ARE CARBON, 1/4 WATT, 20% TOLERANCE UNLESS OTHERWISE SPECIFIED.

ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.

ALL CONDENSERS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.

D.C. VOLTAGES SHOWN ARE MEASURED FROM CHASSIS WITH NO SIGNAL USING AN A.C.-D.C. OR VACUUM TUBE VOLTMETER.

⏚ DENOTES CHASSIS

BATTERY CURRENT DRAIN: APPROXIMATELY 12 M.A. WITH VOLUME CONTROL AT MINIMUM.

SPEAKER IMPEDANCE: 11 OHMS

*121-210 DRIVER TRANSISTOR MUST BE USED WITH 121-211 OUTPUT TRANSISTORS. WHEN 121-210 DRIVER TRANSISTOR WITH YELLOW DOT IS USED, 121-211 OUTPUT TRANSISTORS MUST HAVE MATCHING COLOR DOT

*121-163 DRIVER TRANSISTOR MUST BE USED WITH 121-164 OUTPUT TRANSISTORS.

CIRCUIT DIAGRAM—ZENITH "ROYAL 125" CHASSIS 6JT40Z1