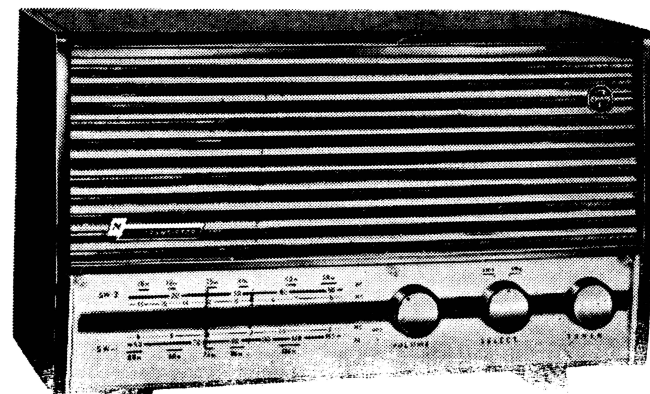


SPECIFICATIONS

Frequency Range :	SW ₁	2 ~ 6 MC	(150 ~ 50m)
	SW ₂	6 ~ 18 MC	(50 ~ 16.6m)
Intermediate Frequency :		455 KC	
Sensitivity :	SW ₁	50 μ V / 10 mW	
	SW ₂	80 μ V / 10 mW	
Power Output :		300mW, undistorted	
		450mW, maximum	
Batteries :		Six No. 1 flashlight dry cells	
		1.5V \times 6 = 9V	
Speaker :		5" PM dynamic speaker	



ALIGNMENT PROCEDURE

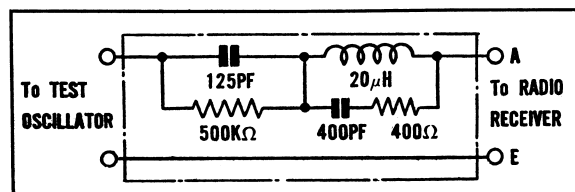
- OUTPUT METER** Connect Output Meter across speaker voice coil terminals.
- OUTPUT LEVEL** Attenuate Test Oscillator output always to maintain 0.5 volts on Output Meter to prevent overloading of the receiver.
- TEST OSCILLATOR** Modulate Test Oscillator at 400 c/s and connect the earth lead wire of Test Oscillator output to receiver chassis board. Adjust the output of Test Oscillator so as to read the output of the radio receiver at around its maximum volume.

Frequency Alignment of Dial Scale

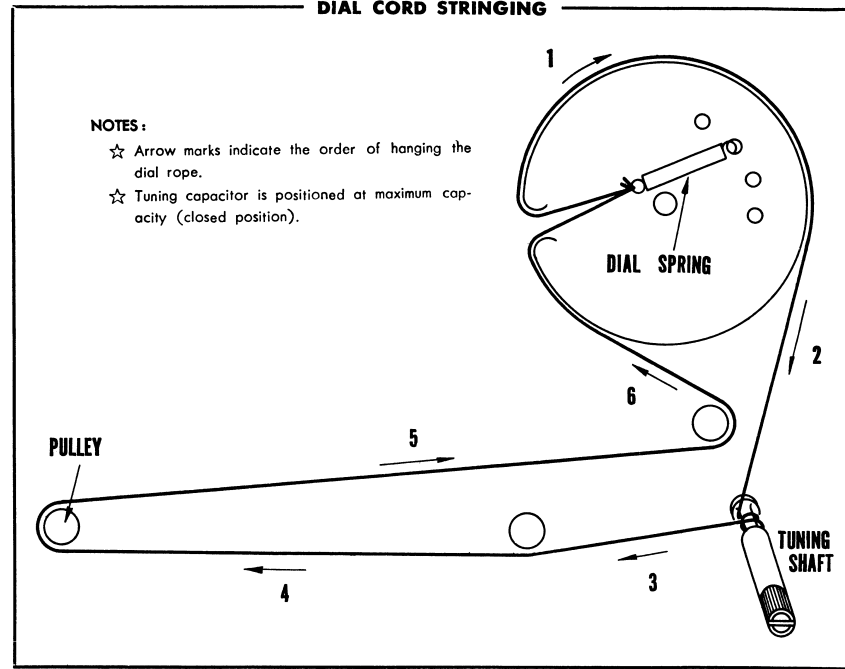
SW ₁ Band		SW ₂ Band	
Frequency	Distance	Frequency	Distance
2.2 MC	17.9 cm	7 MC	24.4 cm
5.5 MC	95.8 cm	16 MC	91.7 cm

TABLE

Step	Band Switch Position	Test Oscillator		Radio Receiver	
		Connection to radio receiver "ANT" terminal in series with 0.1MFD	Dial setting	Dial setting	Adjusting to maximum output
1	SW ₁	Through dummy antenna in series with "ANT" terminal	455KC	Quiet point	Top screws of IF transformers
2			2.2MC	2.2MC	Screw of SW ₁ OSC coil Screw of SW ₁ ANT coil
3			5.5MC	5.5MC	Screw of SW ₁ OSC trimmer Screw of SW ₁ ANT trimmer
4			2.2MC & 5.5MC	2.2MC & 5.5MC	Repeat steps (2) and (3)
5	SW ₂		7MC	7MC	Screw of SW ₂ OSC coil Screw of SW ₂ ANT coil
6			16MC	16MC	Screw of SW ₂ OSC trimmer Screw of SW ₂ ANT trimmer
7			7MC & 16MC	7MC & 16MC	Repeat steps (5) and (6)
8	Check if the above dial settings for SW bands are not made at image frequencies.				

Dummy Antenna (All-wave type)

20μH: Make up a 45 turn, 1/2" diameter bobbin, using 0.2mm insulated wire.

DIAL CORD STRINGING**MAIN PARTS LIST**

Symbol	Parts Name or No.	Description
Capacitors		
C ₁ ~C ₄	4-section trimmer capacitor, #2214B	3~25PF
C ₅ C ₁₁	2-section variable capacitor, 2HC-43B.45	12~430PF
C ₇	Tubular capacitor, PAR-4103	WV400V 0.01MFD
C ₈	Electrolytic capacitor, CT-01001	WV10V 100MFD
C ₉	Ceramic capacitor, 0.05MFD	+100% - 0%
C ₁₀	Ceramic capacitor, 200PF	± 10%
C ₁₁	Tubular capacitor, PAR-4503	WV400V 0.05MFD
C ₁₂	Ceramic capacitor, 10PF	± 20%
C ₁₃	Ceramic capacitor, 500PF	± 5%
C ₁₄	Electrolytic capacitor, NCT3V 30	WV3V 30MFD
C ₁₅	Electrolytic capacitor, NCT3V200	WV3V 200MFD
C ₁₆	Ceramic capacitor, 0.05MFD	+100% - 0%
C ₁₇	Styrol capacitor, 1500PF	± 10%
C ₁₈	Styrol capacitor, 4500PF	± 10%
C ₁₉	Ceramic capacitor, 445PF	± 5%
C ₂₀	Ceramic capacitor, 120PF	± 5%
C ₂₁	Ceramic capacitor, 0.05MFD	+100% - 0%

NATIONAL MODEL AB-321R

