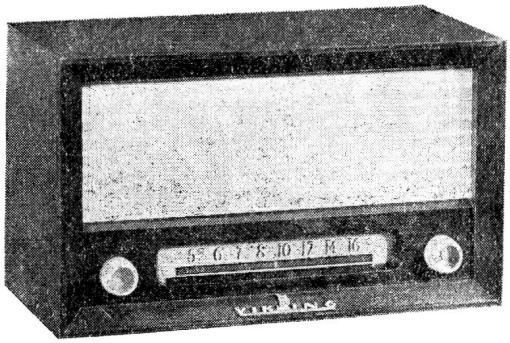
Installation, Operating Instructions

—AND—

Service Information

for Your— **"VIKING"...**

Model RMB-253



5-Tube, Single Band, Battery Operated

SUPERHETERODYNE RECEIVER

with Battery Saver Switch and Tuned R. F. Stage

"A" Battery—1.5 Volts "B" Battery—90 Volts

IMPORTANT

READ THIS CAREFULLY AND RETAIN
FOR FUTURE REFERENCE

THE T. EATON Co LIMITED
CANADA

INSTALLATION and OPERATION

ANTENNA

A short antenna about 30 ft. long will occasionally prove satisfactory especially near powerful broadcasting stations, but such an antenna is not recommended.

For best results an outside antenna, mounted as high as possible, 50 ft. to 100 ft. long including lead-in should be used.

Connect the antenna to BLUE lead extending from the chassis.

GROUND

It is essential that this receiver have a good ground connection. This may be obtained by connecting the ground lead to a water pipe or to a metal rod driven into the ground. Connect the ground to BLACK lead extending from the chassis.

BATTERIES

This receiver has been designed for use with a plug-in type "A" and "B" Battery pack as shown in the layout. It has, however, been equipped with Battery leads of sufficient length to allow for the use of separate large plug-in type batteries to gain greater battery economy.

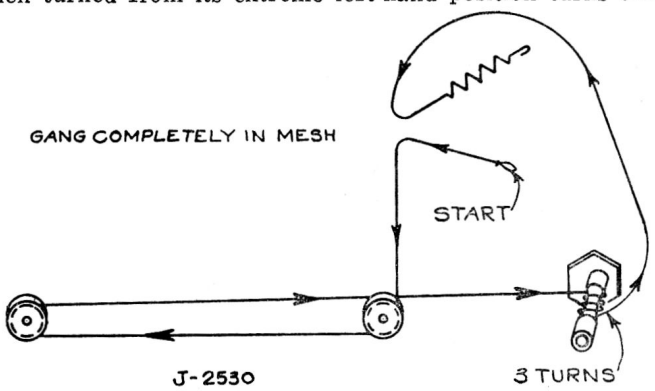
The receiver should not be located close to a radiator or stove as the life of the battery may be reduced by too high a temperature. The approach of the end of the useful life of the battery will be indicated by a gradual reduction in the volume of the receiver. If the volume does become noticeably less than usual, the battery voltages should be checked and the battery replaced if any of the voltages have dropped below two-thirds of their rated value.

BATTERY SAVER

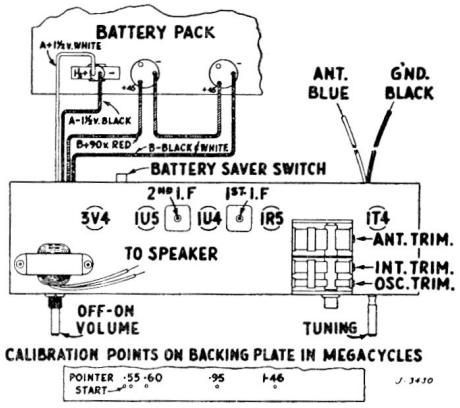
A Battery Saver switch has been built into this receiver to extend the apparent life of the "A Battery" portion of the Battery pack. It is intendted to be used in the "new battery position" until such time as the filament voltage drops to a reading of 1.3 volts. If a voltmeter is not readily available the switch should be left in the new battery position until reception is definitely below standard or for approximately 200 hours of operation at which time it should be placed in the "old battery position". Should this procedure not be followed there will be a decided reduction in "A Battery" useable hours.

OFF-ON SWITCH VOLUME CONTROL

The volume control in addition to performing its usual function incorporates an OFF-ON switch which when turned from its extreme left-hand position turns the received on.



STRINGING DETAIL



CHASSIS LAYOUT

SERVICE INFORMATION

FOR ALIGNMENT AND SENSITIVITY DATA SEE SCHEMATIC

When writing for service information, please quote Viking 54-55 Model, and Serial Number as shown on License Plate.

SPECIFICATIONS

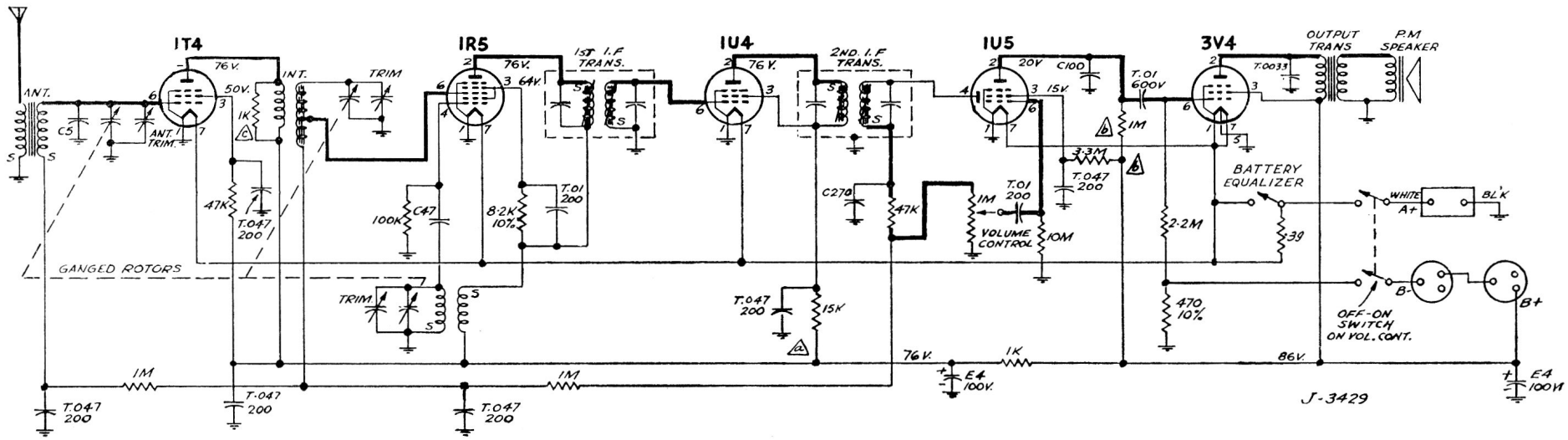
Standard Broadcast Range	540 Kc — 1640 Kc
Intermediate Frequency	455 Kc.
Undistorted Power Output	100 mw.
Maximum Output	250 mw.
"A" Battery, 1.5 Volts—Average Drain	.25 Amps.
"B" Battery, 90 volts—Average Drain	12.0 ma.

REPLACEMENT PARTS LIST

G-332.....4 ufd. 100V. Electrolytic
K-386.....“B” Battery Plug
K-801.....“A” Battery Plug
K-1627-2.....4” x 6” P.M. Speaker Assy.
LK-423-2.....Output Trans.
P-1734-2.....B.C. Ant. Coil
P-2368-1.....B.C. Interstage Coil
P-2369-1.....B.C. Osc. Coil
P-2636.....I.F. Transformer (1st & 2nd)
R-336-2.....Volume Control & Switch
V-367-2.....Gang Condenser

INSTALLATION

N-394-1.....Knob



INT. FREQ. 455 KC.

COMPONENT VALUES

RESISTORS: HALF WATT, UNLESS OTHERWISE NOTED.
20% TOLERANCE, UNLESS OTHERWISE NOTED.
K = 1000 OHMS.
M = 1,000,000 OHMS.

CONDENSERS: T = TUBULAR, FOLLOWED BY CAP. IN MFD. AND D.C.W.V.
E = ELECTROLYTIC, FOLLOWED BY CAP. IN MFD. & D.C.W.V.
C = CERAMIC, FOLLOWED BY CAP. IN MMFD. & TOL. IF CRITICAL.
M = MICA, FOLLOWED BY CAP. IN MMFD. & TOL. IF CRITICAL.

ALIGNMENT AND SENSITIVITY

SIGNAL GENERATOR MODULATED 30% AT 400 CY.

STEP	APPLY SIGNAL AT KC.	APPLY SIGNAL TO	THRU SERIES DUMMY	SET GANG AT	ADJUST FOR MAX. OUTPUT.	NOMINAL SENSITIVITY FOR 50 MILLIWATTS OUTPUT.
1	455	1U4 #6 PIN	.05 μfd	--	2ND. I.F SLUGS	2200
2	455	1R5 #6 PIN	.05 μfd	—	1ST. I.F. SLUGS	90
3	1460	ANT.	200 MMfd	1460	OSC. TRIM	
4	1460	ANT.	200 MMfd	1460	ANT. TRIM INT. TRIM.	4 MV.
5	600	ANT.	200 MMfd	600		6 MV.

ALL VOLTAGES ± 10% MEASURED TO CHASSIS WITH 20,000 OHM/VOLT METER AND BATTERY SAVER SWITCH IN 'ON' POSITION.

C.N. No.	DATE	CHANGE	SYMB.	CK.
54-79	3-22-54	15K RESISTOR & T.047, 200 CONDENSER ADDED (A) 3.3M RESISTOR & 1M RESISTOR RELOCATED	b2	
54-88	3-22-54	1K RESISTOR ADDED (B)		

J-3429