

TECHNICAL INFORMATION

MODEL RAW

6 VALVE BROADCAST A.C. BATT. 1951

DESIGNED & MANUFACTURED BY

RADIO (1936) LTD.

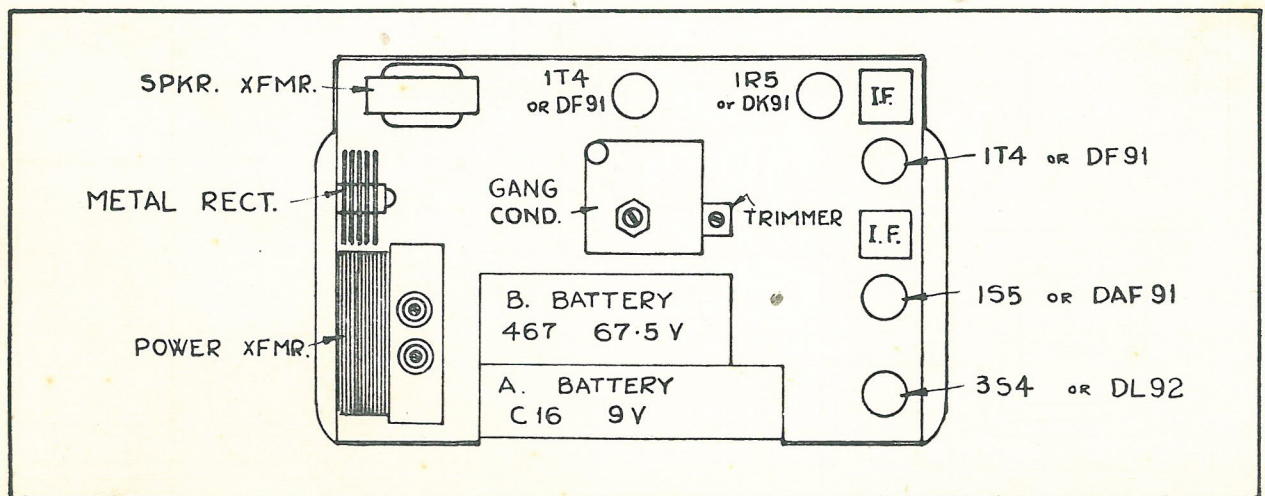
Power Supply	230v. AC 50 Cp/s.	Rating	20 Watts
Tuning Range	1600Kc/s — 550Kc/s	Speaker	Rola 3 C.
I.F. Frequency	460Kc/s	Power Output	100 Milliwatts

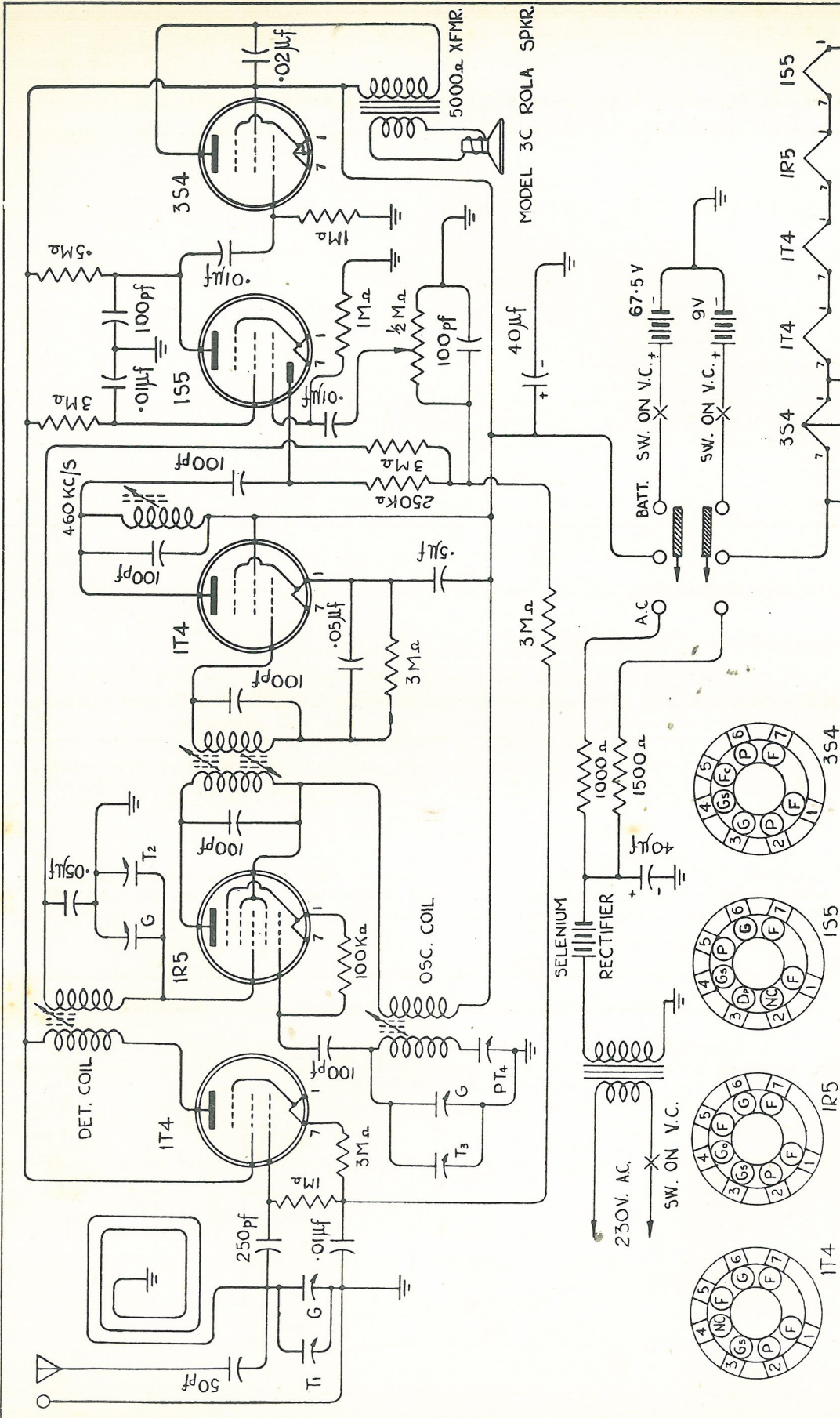
CIRCUIT DESCRIPTION:

A type 1T4 valve is employed as a radio frequency amplifier and is coupled to a type DK91 frequency changer which is in turn coupled by means of a double tuned high gain I.F. transformer to a type 1T4 used as an I.F. amplifier. The type 1S5 performs the combined functions of detection AGC source and voltage amplification and is capacitively coupled to a type 3S4 power amplifier. The 230-volt AC mains source is converted to direct current by means of a double-wound transformer, type RMI. Centercel selenium rectifier and filter system.

ANTENNA:

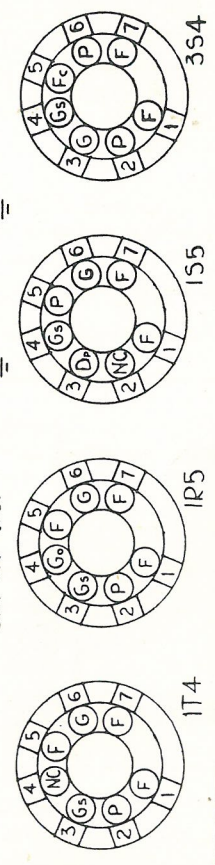
A standard inverted "L" type antenna with a flat top of approximately 30 feet is recommended when an outside antenna is desired and connections are provided at the back of the receiver. When using an outside antenna it is essential for best results that an efficient earth such as a water pipe be used.





**6 VALVE A.C. -
BATT. PORTABLE
MODEL "RAW"**

DRAWN : *W. J. Rogers* 29-9-50
 CHECKED : *P. P. Hopkins*
 APPROVED : *R. J. Long*



VOLTAGES APPEARING BETWEEN VALVE PINS AND CHASSIS FRAME.

VALVE PIN No.	1	2	3	4	5	6	7	8
IT4 R.F. Amp.	+2.7	+63	+63	+1.9	0	+1.9	+3.9	
DK91 Freq. Changer	+1.35	+61	+61	-21	1.2	-.2	+2.65	
IT4 I.F. Amp.	+3.9	+63	+63	-.15	0	+3.5	+5.0	
IS5 Diode Det.	0	-.2	-.25	+17	+32	-2.5	+1.35	
3S4 Power Amp. ..	+5.0	+61	-.2	+63	+6	0	+7.4	

NOTE: D.C. Readings taken with vacuum type voltmeter.

Receiver on A.C. mains.

D.C. RESISTANCES.

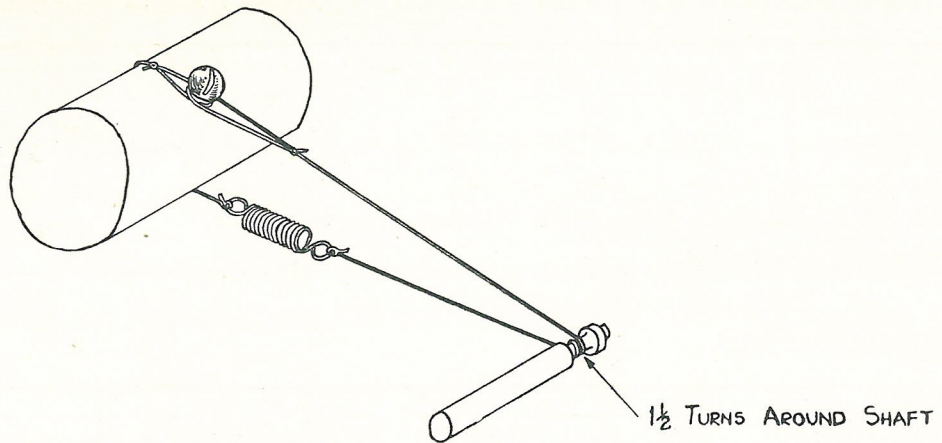
Loop Ant.	1.5 ohms	1st I.F. Primary	14.5
Det. Coil Primary	100 ohms	1st I.F. Secondary	14.5
Det. Coil Secondary	4.5 ohms	2nd I.F. Primary	14.5
Osc. Coil Primary	.75 ohms	Speaker Xformer Primary	475 ohms
Osc. Coil Secondary	2.0 ohms	Speaker Xformer Secondary	.75 ohms
Power Xformer Primary	210 ohms		
Power Xformer Secondary	200 ohms		

ALIGNMENT INFORMATION:

Adjust volume control for maximum gain.

Adjust sig. generator output to no higher than necessary to obtain output meter reading.

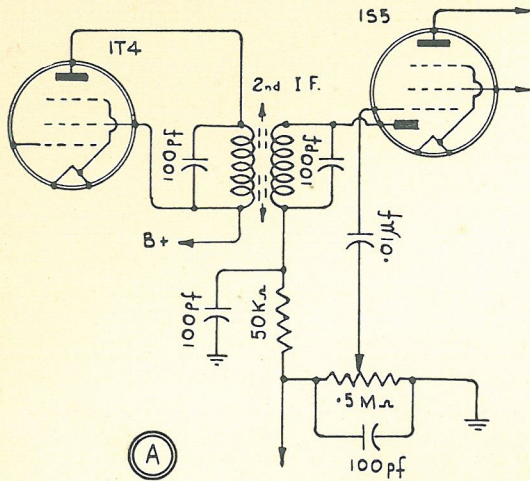
Dummy Ant.	Generator Coupled to	Generator Frequency	Receiver Dial Setting	Adjust.	Remarks	Approx. Sensitivity
.1 Mfd.	Grid IT4 I.F. Amp.	460 Kc/s.	550 Kc/s.	2nd I.F. slug.	Adjust for max.	9000 microvolts.
.1 Mfd.	Grid DK91	460 Kc/s.	550 Kc/s.	2nd I.F. slug. 1st I.F. Prim. slug. 1st I.F. Sec. slug.	Adjust for max.	600 microvolts.
	Loop Loosely	1400 Kc/s.	1400 Kc/s.	Osc. Trimmer	Adjust for max.	
		600 Kc/s.	600 Kc/s.	Osc. Padder	Adjust for max.	
		1400 Kc/s.	1400 Kc/s.	Det. and Ant. Trimmer	Adjust for max.	



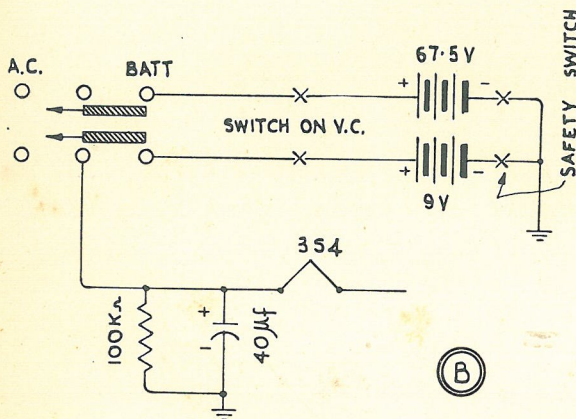
AMENDMENTS AND REMARKS:

1. Production chassis have had added a 50 P.F. condenser which is connected across the detector coil primary.
2. A special switch has been added breaking the B-Lead and is actuated by the volume control shaft.
3. The number of turns around the tuning drive shaft has been increased to $2\frac{1}{2}$ turns.

R.A.W. AMENDMENT Covering Ser. Nos. 140670 - 140969 only.

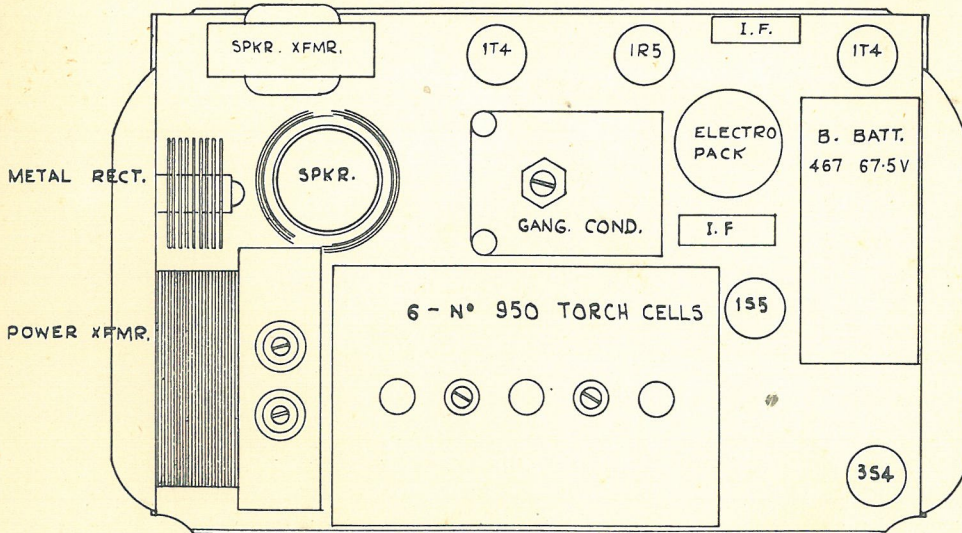


- A. Change from Wearite to Phillip's Type I.F. Transformers.
- B. Incorporating an additional switch in the "A" battery lead, preventing operator from playing receiver on BATT. when A.C. plug is inserted.



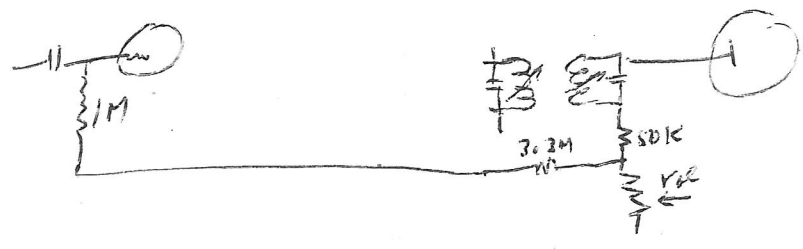
MODIFICATION COMMENCING Serial No. 143314 on "A" modification plus a change to 6 - 950 type torch cells as substituting for type C-16 Battery.

Also new valve layout diagram.

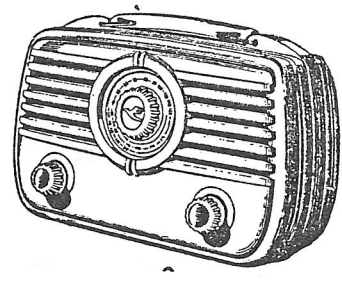


VALVE LAYOUT FOR 5.V. A.C. BATT. PORT. MODEL RAW

RAW S/N 181979 Pola 3C = 29K5
-1955
using 2 - Philips flat IF TS



RAW



RAW mols