

PHILCO

MODEL 351

GENERAL DESCRIPTION:

The Model 351 is similar in appearance and performance to the previous models 350 and 350A which established a fine reputation for sensitivity and general performance.

The circuit is a 5 valve superheterodyne designed to work from either batteries or 230V AC or DC power supplies, using a metal rectifier.

Either the built-in loop aerial or external aerial may be used to feed the 1T4 R.F. tube. The converter tube is a DK40, followed by another 1T4 in the I.F. stage. A 1S5 is used for detection, A.V.C., and audio amplification, and is resistance capacity coupled to the 3V4 output tube.

Removing the cabinet back isolates the chassis from the mains, and gives access to the mains/battery switch.

WARNING! WHEN POSSIBLE, ALL SERVICING AND ALIGNMENT OF THIS SET SHOULD BE DONE ON BATTERIES WITH THE MAINS SUPPLY CABLE DISCONNECTED FROM THE SUPPLY POINT.

IN SOME CASES HOWEVER, WHEN IT IS ESSENTIAL TO WORK ON THE SET WHILE IT IS CONNECTED TO THE MAINS, PRECAUTIONS MUST BE TAKEN TO ENSURE THAT THE MAINS LEAD IS PHASED CORRECTLY. THE KNOT IN THE POWER CABLE REPRESENTS THE NEUTRAL LEAD. CHECK FOR POLARITY ON D.C. OR PHASE ON A.C.

THIS SET MUST BE CONSIDERED AS A NORMAL AC/DC SET WITH ITS ATTENDANT DANGERS.

SPECIFICATIONS:

Frequency Range - 550 KC/s to 1600 KC/s

Power Input - 90 volt plate supply, and 9 volt filament supply from batteries or 230 volt A.C. or D.C.

Power Consumption: - "A" Battery 9V. 50 M/A.
"B" Battery 90V. M/A.

From external power supply - 40 watts.

Batteries Used: - 1 - "A" Battery
Eveready No. 739,
9 V. block.

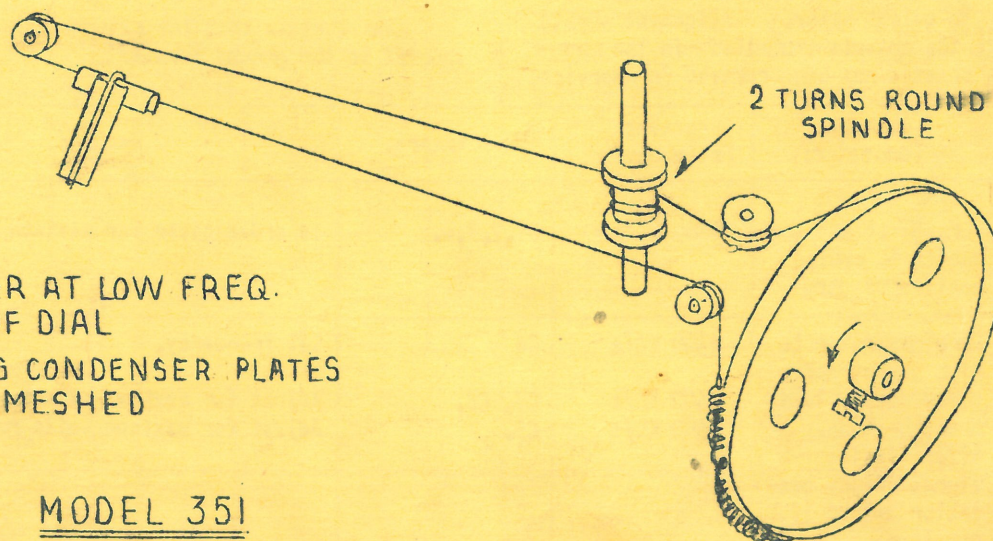
2 - "B" Batteries,
Eveready No. 482
"Mini-Max" 45V.
blocks.

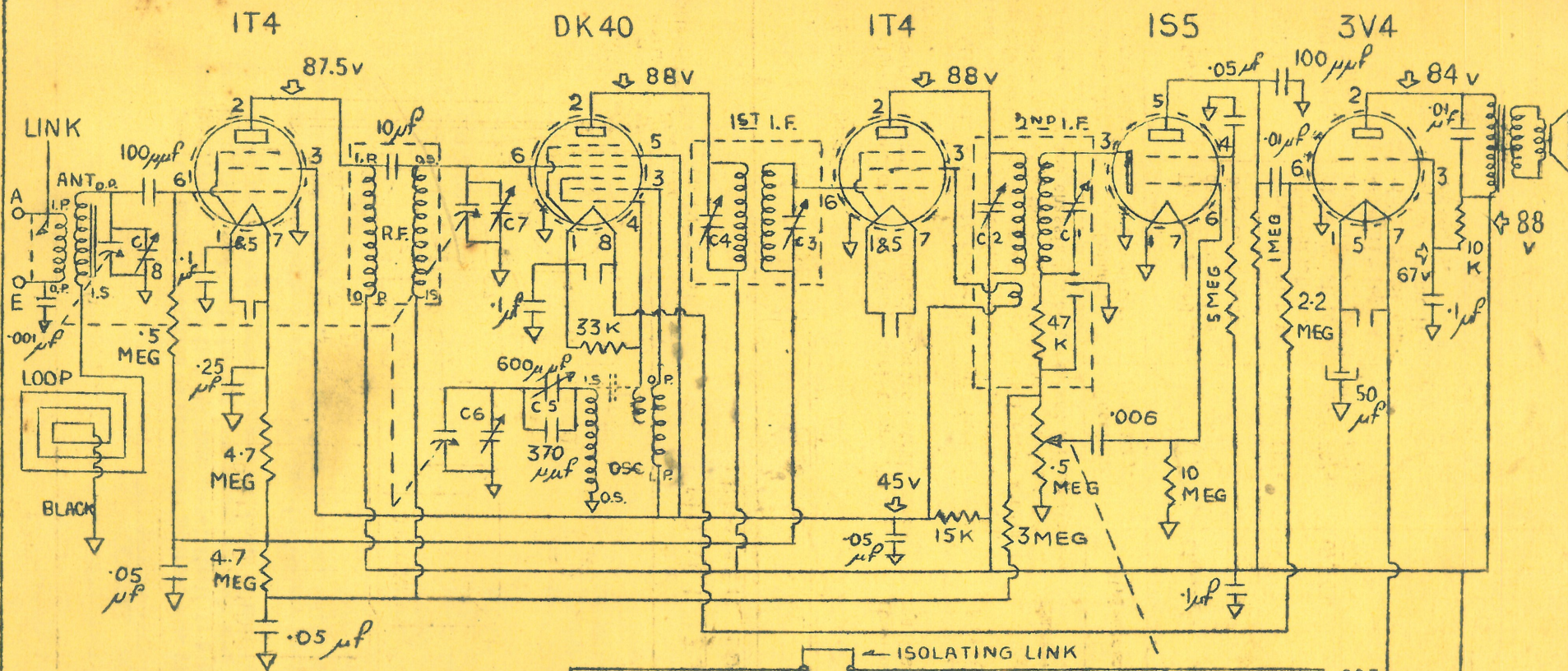
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POINTER AT LOW FREQ.
END OF DIAL
TUNING CONDENSER PLATES
FULLY MESHD

MODEL 351

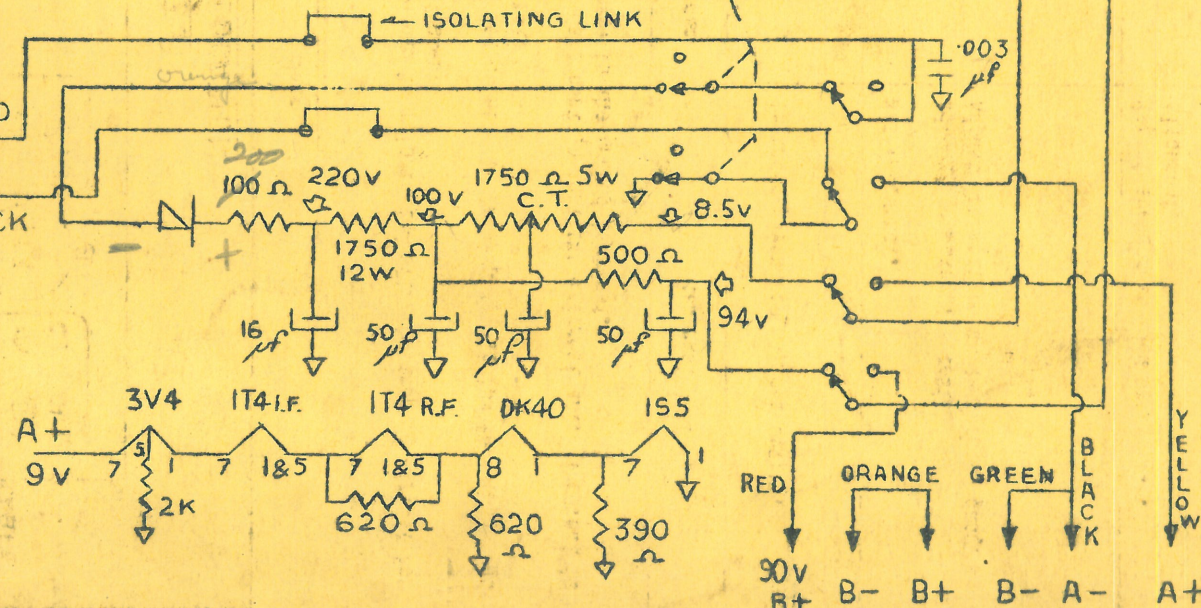
DIAL CORD INSTALLATION





NOTE :- VOLTAGES SHOWN ON THE MAIN CIRCUIT WERE TAKEN WITH RECEIVER OPERATING AC. & D.C. FROM BATTERIES.

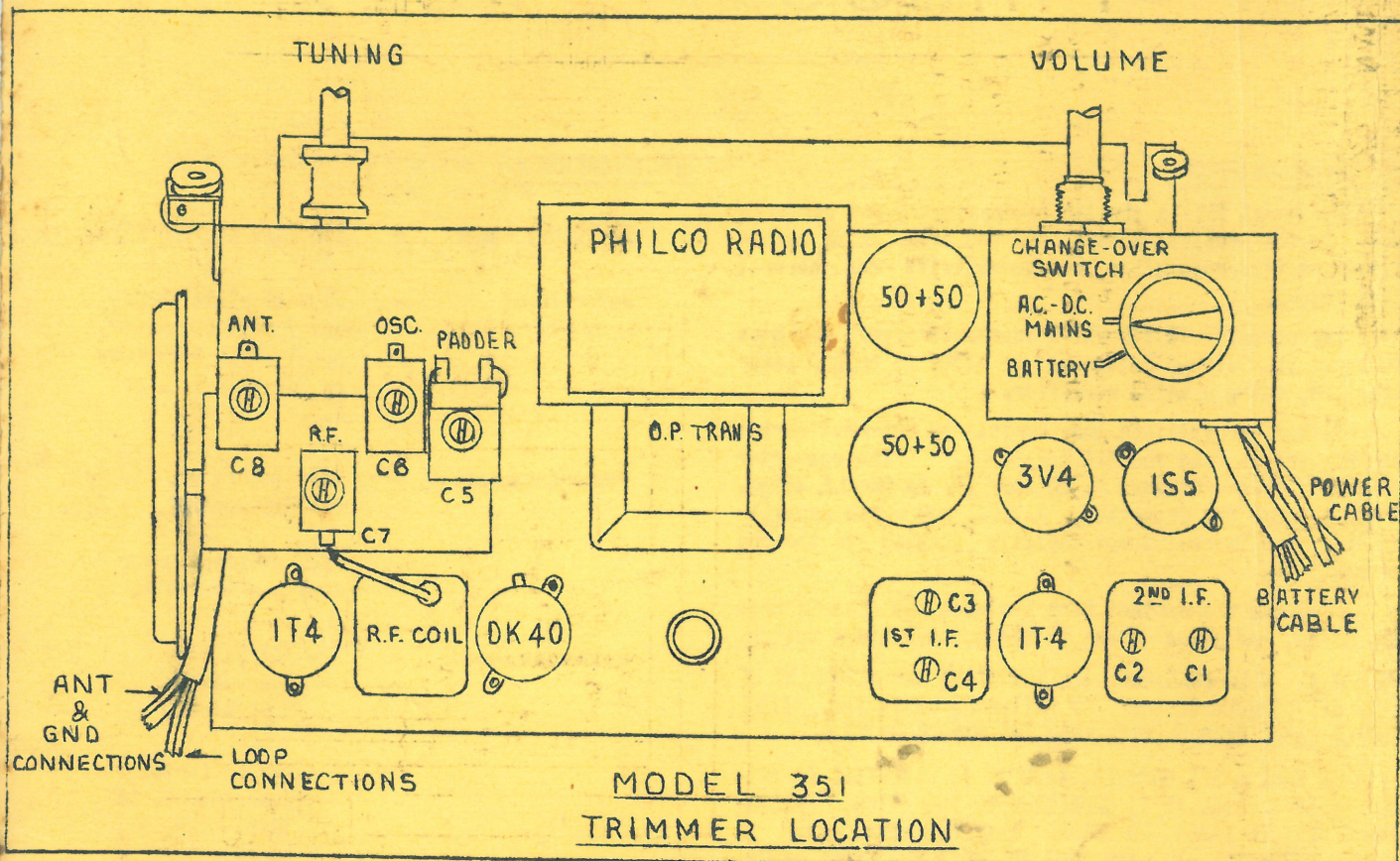
VOLTAGES SHOWN ON THE POWER SUPPLY ARE THOSE TAKEN WITH THESE SET OPERATING FROM 230V ~ MAINS



N.Z. PHILCO 351		
DRAWN	BP	18-2-49
CHECK	RP	21-2-49
APPROVED	ST. J.	Nº 2034

I.F. 265 K.C.

DOMINION RADIO & ELECTRICAL CORP. LTD AUCKLAND



ALIGNMENT INSTRUCTIONS

EQUIPMENT REQUIRED:

Signal generator with dummy aerial or 200 mmf. condenser. Output meter connected across output transformer.

Alignment steps to be carried out in the order given with lowest output from generator consistent with readable deflection on output meter. Alignment should be carried out with the chassis installed in the carrying case. If the chassis has been removed for service

it should be reinstalled with the loop in circuit for realignment.

Set pointer to index point at low frequency end of dial.

Make certain that the external ant. terminal is shorted to the ground terminal.

Generator Frequency:	Connect Generator:	Receiver Frequency:	Trimners:	Remarks:
265 KC/s	Through .1 mfd condenser to centre section of gang	1600 KC/s	C1,2,3,4.	In order given for maximum output.
1400 KC/s	Turn generator to high output and place output lead near the loop. After finding signal reduce generator output if necessary.	1400 KC/s	C6	Set frequency.
1400 KC/s 600 KC/s		1400 KC/s 600 KC/s	C7, C8. C5.	Adjust for maximum output. Adjust for maximum while rocking gang.
				Repeat above operation except I.F. alignment.

GENERAL NOTES

Greatly improved reception is not always apparent when using the outside aerial connection. This is due to various factors; one being that the loop aerial itself is highly efficient, also the aerial circuit coupling has been kept low to avoid interference from strong stations when using various types of aerials. In all cases using an external aerial, a good ground connection should be made to a water pipe or other good earth.

If the set is being stored, or transported for any length of time without being used, it is advisable to turn the Mains/Battery switch to the AC/DC position. This disconnects the batteries entirely from the circuit.