

LISSEN MODEL 8073 THREE - VALVE BATTERY RECEIVER



A screen-grid, detector and pentode "straight" receiver, the 8073 is produced by Lissen, Ltd., of Worples Road, Isleworth, Middlesex.

Circuit.—The H.F. valve SG2V (V1) is preceded by a band-pass aerial filter using link coupling. Volume is controlled by varying the bias with a potentiometer, R2, across the G.B.2 tapping on the battery.

Coupling to the next valve is by tuned anode coil with anode H.T. decoupling.

The L2 detector (V2) operates as a leaky grid detector with reaction. The anode circuit contains an H.F. choke, and the coupling to the output valve is by parallel fed transformer. The H.T. is properly decoupled.

The output valve P225 (V3) has a grid stabilising resistance, and the speaker is a permanent magnet model.

Special Notes.—Battery connections (battery is a Lissen 120-volt H.T.): yellow plug is negative; white, 4½ volts; black (L.T.— and H.T.—) 9 volts; mauve, 60 volts; pink, 120 volts.

Quick Tests.—See valve readings.

General Notes.—There is no need to remove the chassis to reach the components underneath. Simply remove the board underneath the cabinet.

The volume control and reaction are ganged so that when taking the readings of V1 it is essential to make sure that zero biasing potential is applied. This is best done by increasing the volume control to a point just short of oscillation.

The resistances R4, R5 and R7 are of the spaghetti type, and the grid leaks are the well-known Lissen type.

All components and switch contacts are accessible and the method of assembly is obvious.

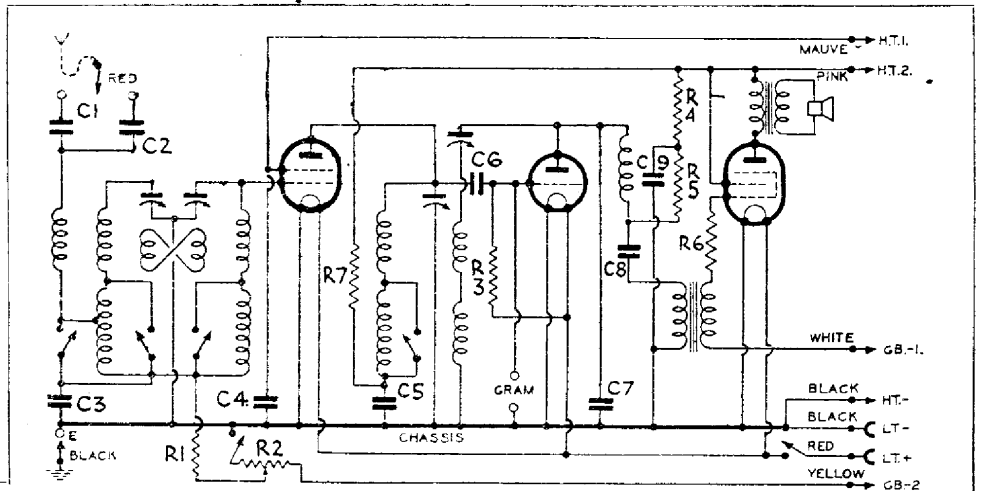
When finished with the repair, replace the board underneath the cabinet.

VALVE READINGS				
H.T. 120v. with set not oscillating.				
Valve	Type.	Electrode.	Volts.	M.A.
1	S.G.2V.	anode ...	100	2.4
		screen ...	60	
2	L2	anode ...	39	1.9
3	P.T.225	anode ...	113	5.4
		aux. grid ...	117	1.1

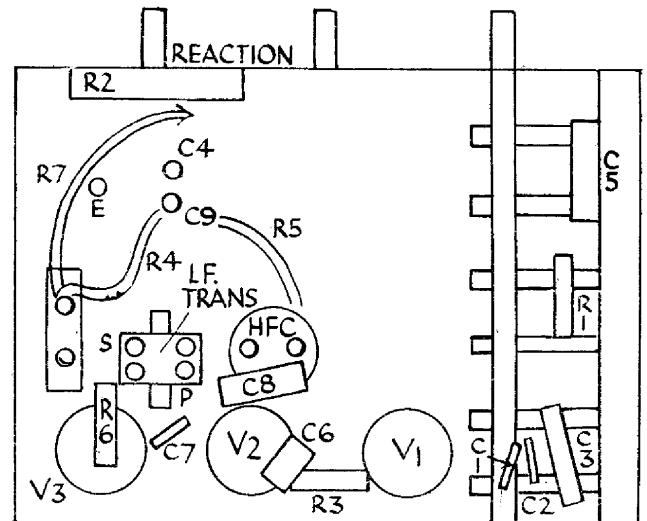
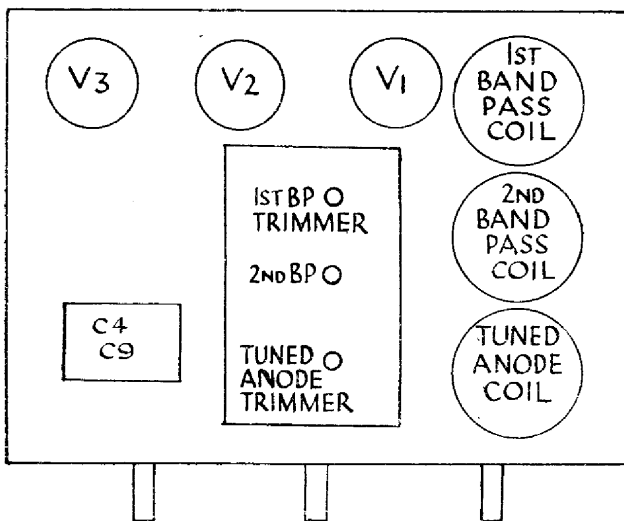
RESISTANCES		
R.	Purpose.	Ohms.
1	Decoupling V1 grid ...	100,000
2	Var. ptr. across G.B.-2 (V.C.) ...	5,000
3	V2 grid leak ...	1 meg.
4	V2 anode decoupling ...	10,000
5	V2 anode L.F. coupling ...	30,000
6	V3 grid stopper ...	80,000
7	V1 anode decoupling ...	5,000

CONDENSERS		
C.	Purpose.	Mfd.
1	Series aerial0003
2	Series aerial00005
3	Decoupling V1 grid1
4*	V1 screen ...	1
5	Decoupling V1 anode1
6	V2 grid00005
7	V2 anode by-pass0001
8	Feed to L.F. transformer1
9*	V2 anode decoupling ...	1

* In one block.



A link or inductively coupled band-pass circuit precedes the variable-mu screen grid valve in the Lissen 8073. The L.F. transformer is resistance-capacity fed.



As these layouts show, the 8073 is a simple service proposition. Time is also saved by the fact that the underside of the chassis is made available by removing a board at the bottom of the cabinet.