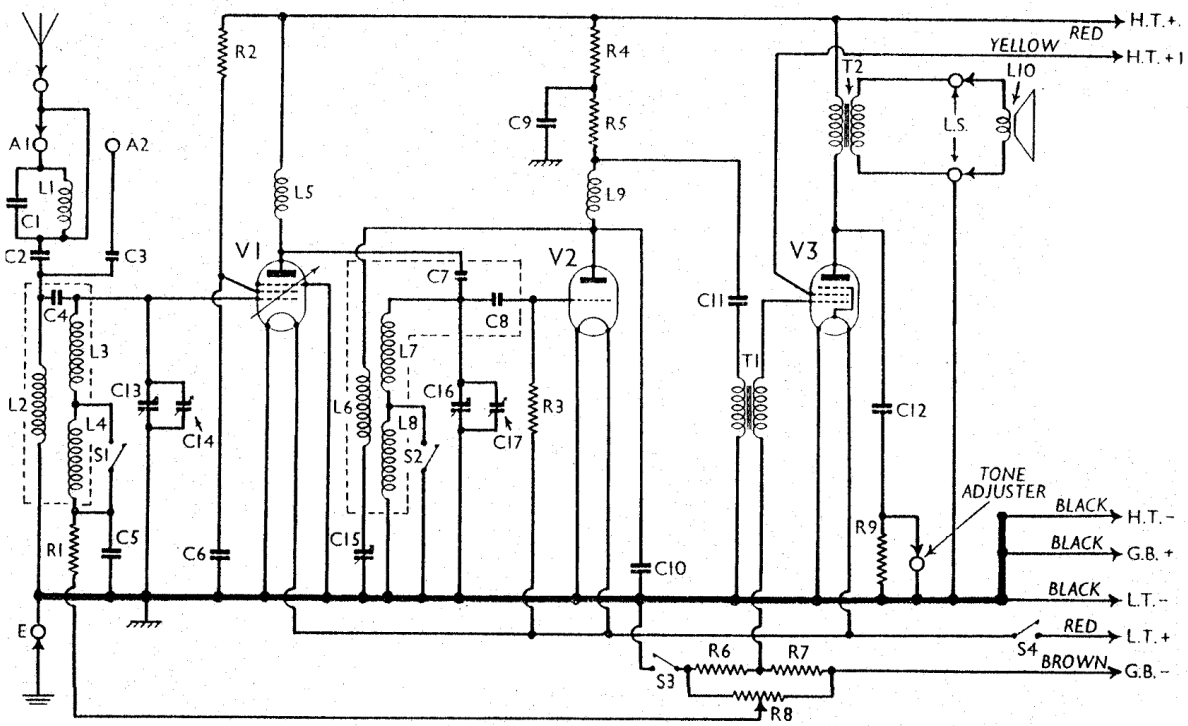
EVER READY - 5012 & 5024



Circuit diagram of the Ever Ready 5024 battery receiver. The 5012 is very similar.

COMPONENTS AND VALUES

	RESISTANCES	Values (ohms)
R1	V1 C.G. decoupling	110,000
R2	V1 S.G. H.T. feed	40,000
R3	V2 grid leak	2,100,000
R4	V2 anode decoupling	11,000
R5	V2 anode load	40,000
R6	G.B. potential divider	800
R7	G.B. potential divider	1,500
R8	V1 gain control	3,000
R9	Part of T.C. filter	31,000

	CONDENSERS	Values (μF)
C1	Droitwich rejector tuning	0·0003
C2	Aerial series condensers	0·0003
C3	Aerial series condensers	0·000008
C4	Capacitative aerial coupling	0·000005
C5	V1 C.G. decoupling	0·1
C6	V1 S.G. by-pass	0·1
C7	V1 to V2 H.F. coupling	0·00005
C8	V2 C.G. condenser	0·00005
C9	V2 anode decoupling	0·5
C10	V2 anode H.F. by-pass	0·0002
C11	L.F. coupling to T1	0·1
C12	Part of T.C. filter	0·01
C13†	Aerial circuit tuning	—
C14‡	Aerial circuit trimmer	—
C15†	Reaction control	0·0005
C16†	V2 C.G. circuit tuning	—
C17‡	V2 C.G. circuit trimmer	—

	OTHER COMPONENTS	Approx. Values (ohms)
L1	Droitwich rejector coil	20·0
L2	Aerial coupling coil	24·0
L3	Aerial tuning coils	3·0
L4	Aerial tuning coils	15·0
L5	V1 anode H.F. choke	550·0
L6	Reaction coil	2·4
L7	V2 grid tuning coils	2·2
L8	V2 grid tuning coils	15·8
L9	V2 anode H.F. choke	350·0
L10	Speaker speech coil	1·2
T1	Intervalve trans. Pri.	930·0
	Intervalve trans. Sec.	8,800·0
T2	Output trans. Pri.	830·0
	Output trans. Sec.	0·3
S1, S2	Waveband switches	—
S3	G.B. circuit switch	—
S4	L.T. circuit switch	—

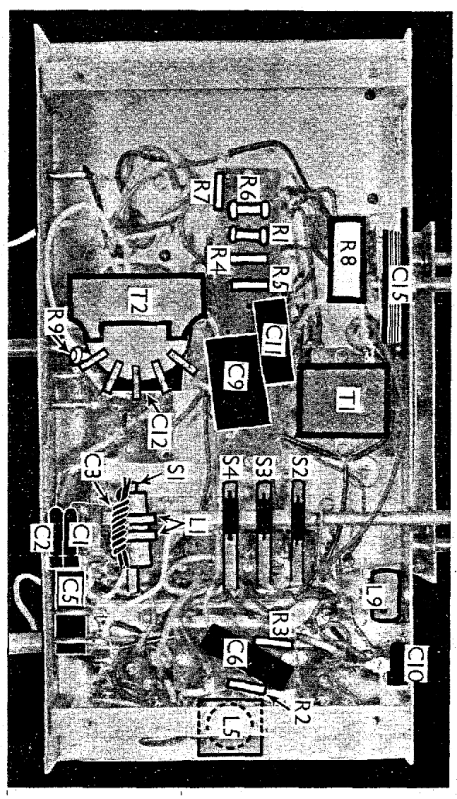
VALVE ANALYSIS

Valve voltages and currents given in the table below are those measured in our receiver when it was operating with a new H.T. battery reading, 128 V on load. The volume control was at maximum, but the reaction control was at minimum, and there was no signal input.

Voltages were measured on the 1,200 V scale of an Avometer, chassis being negative.

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 K50M	126	1·8	95	0·5
V2 K30D	40	1·7	—	—
V3 K70B*	125	3·0	128	0·6

* Marked " A " in our case.



GENERAL NOTES

Switches.—**S1** and **S2** are the wave-change switches, both *closed* on M.W. and *open* on L.W. **S3** and **S4** are the G.B. and L.T. circuit switches, both *closed* when the set is on, and *open* when it is off. The switches are identified in our under-chassis view. **S1** is beneath **L1.**

Coils.—**L1** is in two sections on a tubular former beneath the chassis. **L2-L4** are in a screened unit on the chassis deck, also containing **C4,** while **L6-L8** are in a further screened unit, also containing **C7** and **C8. L5** and **L9** are two H.F. chokes, mounted beneath the chassis.

CIRCUIT ALIGNMENT

Rotate gang until pointer is at higher wavelength end of scale. Push a flat-ended rod through hole in side of gang cover and against the vanes. Rock gang until rotors can be felt to be fully in mesh. If pointer does not coincide with horizontal lines at end of scale, release centre fixing screw and adjust pointer suitably.

Rotate gang until pointer is at lower wavelength end of scale and switch set to M.W. Connect signal generator to **A1** and **E** sockets, feed in a 202 m. signal, and adjust **C14** and **C17** for maximum output.