

VIDOR CN222

Three-valve, three-waveband, tuned radio-frequency universal receiver, with separate volume and reaction controls. Suitable for operation from 200-250v, 50-100 cycles AC or 200-250v DC. Marketed by Vidor, Ltd., West Street, Erith, Kent.

ALTERNATIVE aerial inputs are provided, via the aerial trimmer T1 for local reception or direct to the series aerial condenser C1 for distant reception.

On medium and long waves the aerial coupling coil L1 transfers the signal to the grid tuning coils L2 (MW) and L3 (LW), which are tuned by VC1 section of the ganged condenser.

On short waves L1 acts as a high impedance

coupling coil to pass the signals direct to the grid of the variable-mu HF pentode V1. This valve is cathode biased by the fixed resistance R1 and the volume control R3 with additional current flowing through the volume control from the high tension line via R2. The volume control is thus a sensitivity control varying the gain of V1.

From V1 the signals are passed to a tuned anode circuit comprising L4 and L5 tuned by VC2. Reaction is provided by the feed-back coil L6 and controlled by the variable condenser VC3.

On SW the tuning coil is L7 with the reaction coil L8.

The signals are fed to the HF pentode V2, which is employed as a leaky grid detector, R5 and C5 being the grid leak and condenser.

The audio frequency signals from V2 are HF filtered by the choke L9 and condensers C7 and C8.

AF potentials across R7 are capacity coupled by C9 to the grid of the output pentode valve V3 with R9 as the grid stopper and R8 the grid leak. V3 is cathode biased by R10, decoupled by C11.

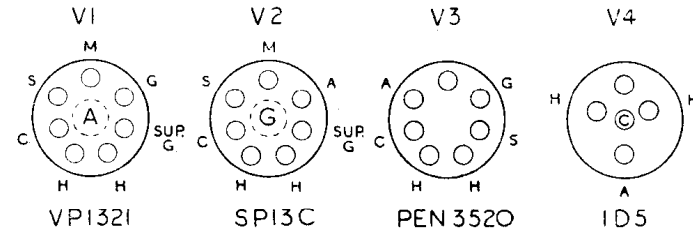
Pentode tone correction is effected by C12 and the output from V3 is coupled to the energised moving coil loudspeaker by the matching transformer L10. L11 is the speech coil and L13

Continued overleaf.

VALVE READINGS

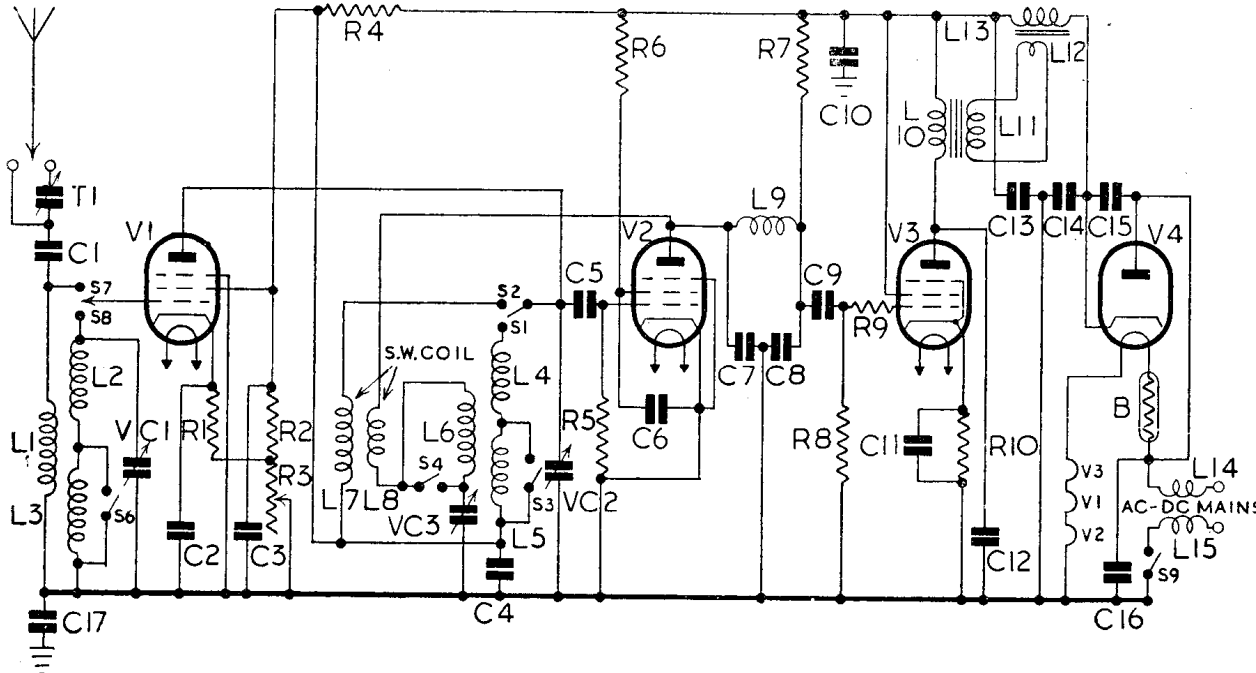
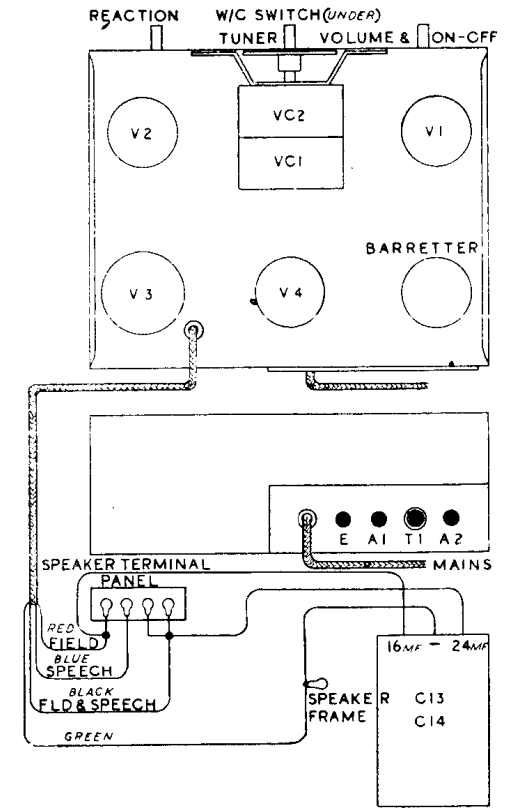
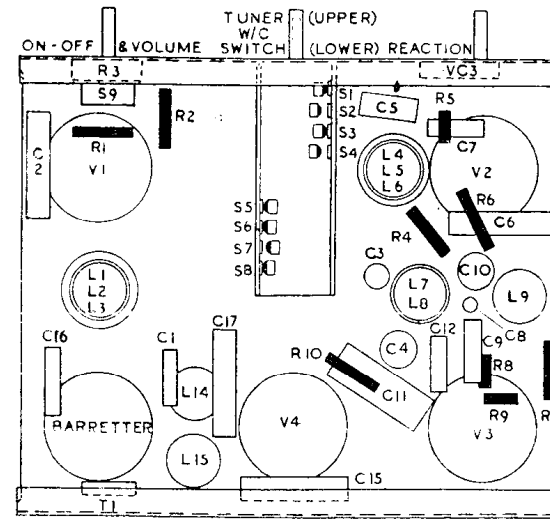
V	Type	Electrode	Volts	mA
1	VP1321	Anode	140	5.4†
		Screen*	140	4.3
		Cathode	1.1	6.9
2	SP13C	Anode	48	5
		Screen	32	15
3	PEN3520	Anode	170	40‡
		Screen	200	8.1
		Cathode	6.6	48‡
4	ID5	Anode	250	62
		Cathode	250	62

* Including drain through R2, R3.
† Varies with setting of R3.



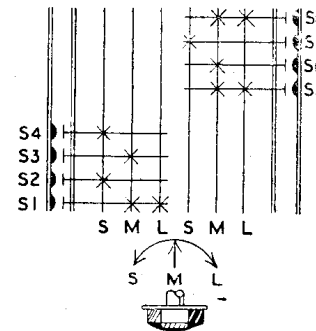
(Above): Details of the underside of the chassis and (right) drawings which show the general arrangement and identify speaker connections.

(Left): Valve bases as seen with valves inverted and with pins coded to show electrode connections.



SWITCH DIAGRAM

X = CONTACTS CLOSED



This is a straight three receiver plus half-wave rectifier for operation from AC or DC supplies and is a good example of conventional design. Wave-switching sequence is given by the diagram above.

CAPACITORS

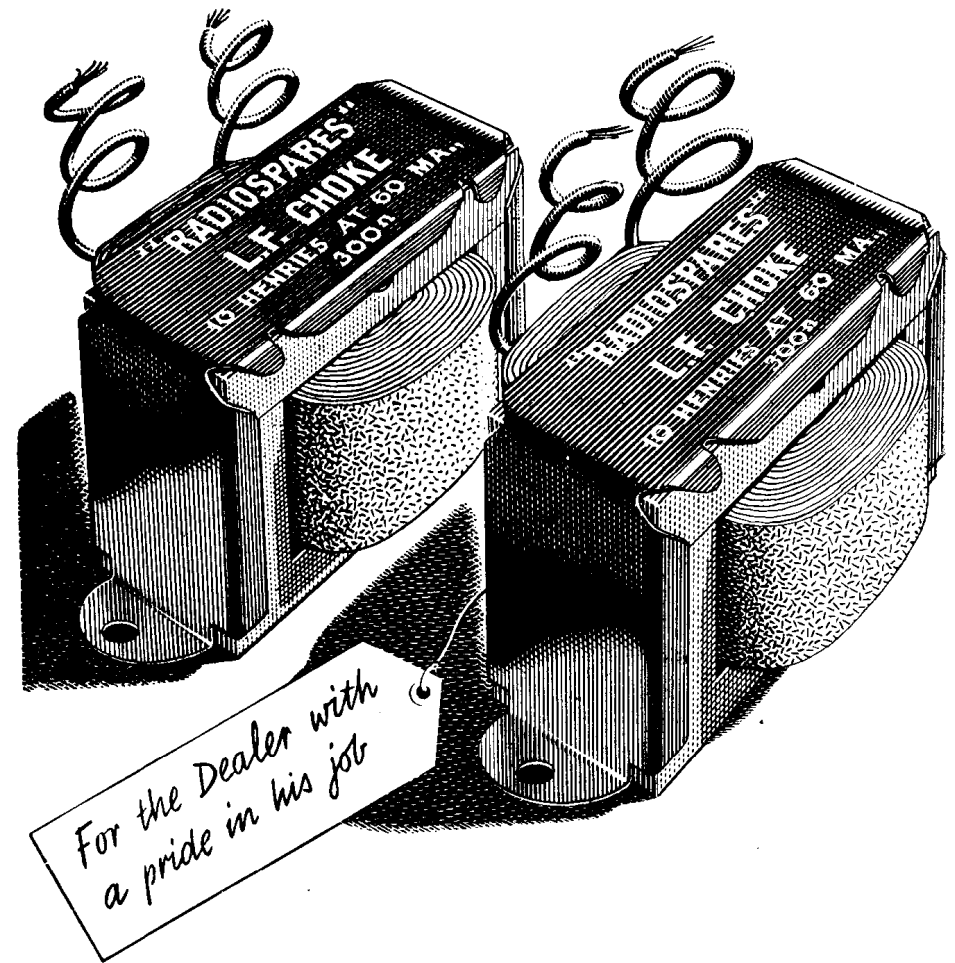
C	Mid	C	Mid
1	.0005	10	.5
2	.1	11	25
3	.1	12	.905
4	.8	13	24
5	.0001	14	16
6	.1	15	.02
7	.0001	16	.01
8	.0002	17	.02
9	.01		

RESISTORS

R	Ohms	R	Ohms
1	150	6	750,000
2	53,000	7	250,000
3	10,000	8	250,000
4	5,000	9	100,000
5	1 meg	10	150

WINDINGS

L	Ohms	L	Ohms
1	3.7	9	165
2	2.2	10	700
3	22	11	.5
4	2.2	12	2.4
5	22	13	820
6	3.7	14	6
7	.05	15	6
8	.25		



We present our range of L.F. (Smoothing) Chokes. They are guaranteed quality components with the following general characteristics. WINDINGS : paper-interleaved, wax-impregnated. LAMINATIONS : high- μ alloy steel. OVERALL HEIGHT : 2 in. OVERALL WIDTH : $2\frac{3}{4}$ in. (fixing centres : $3\frac{1}{8}$ in.). OVERALL DEPTH : $1\frac{7}{8}$ in. (Stack only : $1\frac{1}{8}$ in.). They are available in two distinct types. (1) INDUCTANCE : 10 Henries, capacity : 60 M/a. RESISTANCE : 300Ω . (2) INDUCTANCE : 40 Henries, capacity : 30 M/a. RESISTANCE : 1250Ω . The price of both types is 6/9 each net trade ; and they are obtained only direct from

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the field winding which also acts as a smoothing choke.

On AC supplies high tension is derived from the mains via the half-wave rectifier V4 whose heater is in series with the other valve heaters in the usual way across the mains input.

Chokes L14 and L15 are provided for HF filtering.