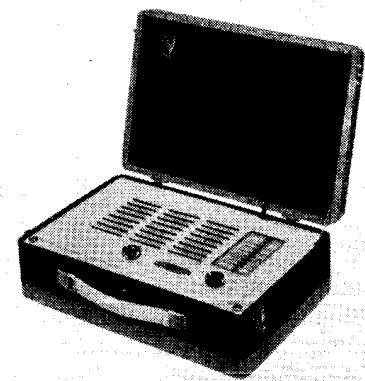


# VIDOR "REGATTA" Model CN420



Four-valve, two-waveband all-dry battery portable superhet with self-contained frame aeri- als. Grey and blue fabric covered attaché case fitted with cream plastic carrying handle. Weight, complete with batteries, 13lbs. Made by Vidor Limited, West Street, Frith, Kent.

**AERIAL.**—The receiver is fitted with frame aeri- als attached to rear of removable panel on inside of case lid. On LW band LW aerial L2, which is permanently connected in circuit, is tuned by VC1 and trimmed by T1 C1 switched in by S1. On MW band S1 disconnects LW trimmers and connects MW aerial L1 across L2 VC1. No MW band aerial trimmer is provided.

Aerial tuned circuits are coupled by C2 to g3 of heptode frequency-changer V1. AVC decoupled by R4 C12, is applied through R1 to g3. Primary L5 C3 of IFT1 is in the anode circuit.

Oscillator is connected in a tuned-grid series-fed circuit. A single inductance covers both MW and LW, the appropriate ranges being obtained by use of capacity trimmers. On MW band grid coil L4,

is padded by C7, is tuned by VC2 and trimmed by T2. On LW S2 merely brings into circuit across L4 an additional fixed trimming capacity C7. Tuned circuit is coupled by C5 to oscillator grid (g1) of V1, automatic bias being developed on C5 with R2 as leak.

Anode reaction voltages are developed across L3 connected in series with oscillator anode (g2, g4) of V1, the HT for which is obtained from V2 screen dropper R3 decoupled by C8.

IF amplifier operates at 475kc/s. Secondary L6 C4 of IFT1 feeds signal and AVC voltages decoupled by R4 C12 to g1 of IF amplifier V2. Screen voltage is obtained from R3 decoupled by C8. Suppressor grid is internally strapped to negative

side of filament. Primary L7 C9 of IFT2 is in the anode circuit.

Signal rectifier. Secondary L8 C10 of IFT2 feeds signal to diode anode of V3. R6 the volume control is the diode load and R5 C11 form an IF filter.

AVC. The DC component of the rectified signal across R5 R6 is decoupled by R4 C12 and fed to g3 of V1 and g1 of V2.

AF amplifier. Audio signal across volume control R6 is fed by C13 to pentode AF amplifier section of V3. Automatic bias for grid is developed on C13 with R7 as leak. Screen voltage is obtained from R8 decoupled by C14. Suppressor is internally strapped to negative side of filament. R9 is anode load and C15 anode RF bypass capacitor.

Output stage. Signal at anode V3 is fed by C16 to pentode output amplifier V4. Negative bias is obtained by connecting earthy end of grid load

R11 to chassis through HT negative biasing resistor R10. Screen voltage is obtained direct from HT line decoupling being provided by C17. Output signal at anode is transformer coupled by OP1 to a 5in. PM speaker L11.

HT of 90V is obtained from a Vidor L5039 heavy duty type battery, decoupling being by C17.

LT of 1.5V for the parallel connected filaments of V1 to V4 is obtained from a Vidor L5041 battery. S3 the on/off switch, which is mounted on side of case and automatically operated by lid stay, breaks HT and LT negative connections to chassis.

Servicing. If the two large screws at front corners of hinged escutcheon plate are unscrewed, the plate, with chassis attached, can be opened up to give access to batteries and chassis. To renew dial drive cord it is necessary to remove chassis from escutcheon to give access to pulleys and drive wheel. Chassis is held by three hexagon nuts marked "A" on layout.

### CAPACITORS

C	Capacity	Type	R	Ohms	Watts
1	150pF	Silver Mica	4	2.2M	1/2
2	100pF	Silver Mica	5	100K	1/2
3	65pF	Silver Mica	6	1M Log Law	Potr.
4	65pF	Silver Mica	7	4.7M	1/2
5	100pF	Silver Mica	8	4.7M	1/2
6	635pF	Silver Mica	9	1M	1/2
7	515pF	Silver Mica	10	560	1/2
8	.1 Tubular	350V	11	2.2M	1/2
9	65pF	Silver Mica			
10	65pF	Silver Mica			
11	100pF	Silver Mica			
12	.05 Tubular	200V			
13	.001 Tubular	500V			
14	.05 Tubular	200V			
15	200pF	Silver Mica			
16	.01 Tubular	350V			
17	2 Electrolytic	200V			

### INDUCTORS

L	Ohms
1	1.5
2	15
3	1
4	1.5
5	20
6	20
7	20
8	20
9	450
10	.5
11	3

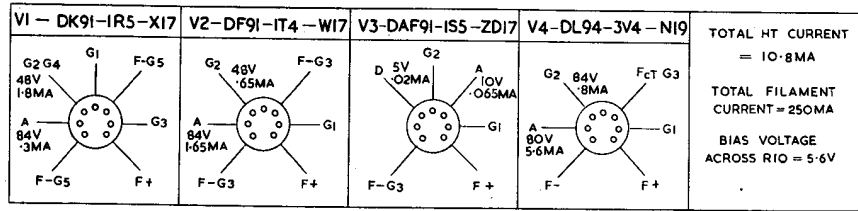
### RESISTORS

R	Ohms	Watts
1	470K	1/2
2	100K	1/2
3	12K	1/2
4	2.2M	1/2
5	100K	1/2
6	1M Log Law	Potr.
7	4.7M	1/2
8	4.7M	1/2
9	1M	1/2
10	560	1/2
11	2.2M	1/2

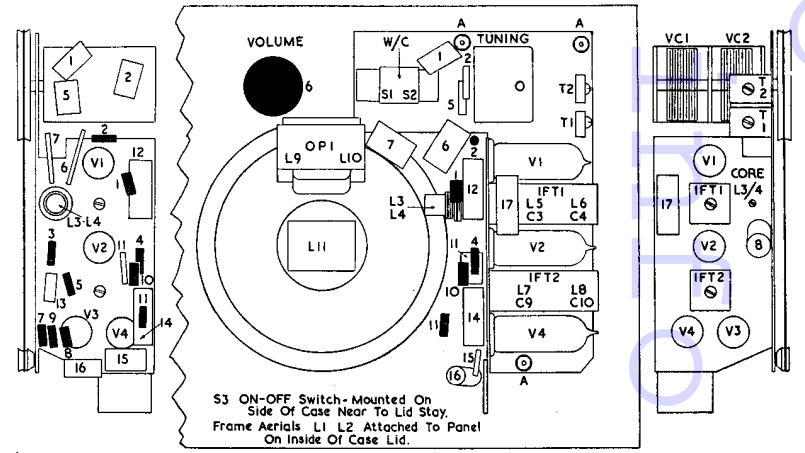
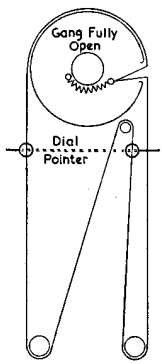
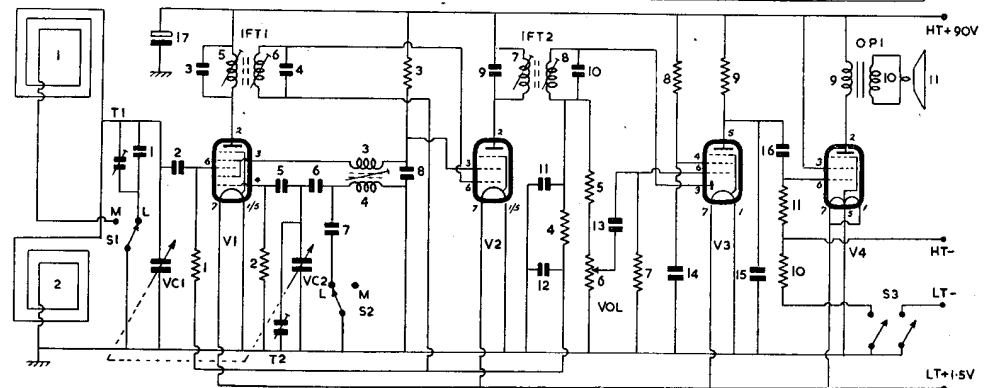
### TRIMMING INSTRUCTIONS

Apply signal as stated below	Tune Receiver to	Trim in order stated for maximum output
(1) 475 kc/s to VC1 via .01 mF	200 metres	Cores L5, L6, L7, L8
(2) Check to see that with gang fully meshed dial pointer coincides with 550 metre calibration		
(3) 1.5 mc/s to frame via lead placed in close proximity	200 metres	T2
(4) 600 kc/s as above	500 metres	Core L3/4 and repeat operation (3) and (4)
(5) 250 kc/s as above	1200 metres	T1

No LW oscillator trimmer is provided therefore if LW calibration is out, the capacity of C7 should be checked.



TOTAL HT CURRENT = 10.8MA  
TOTAL FILAMENT CURRENT = 250MA  
BIAS VOLTAGE ACROSS R10 = 5.6V



R	3	5	2	1	4	10	6	1	2	10	4	17	8
C	7	5	6	11	12	14	7	6	5	11	12	17	3
L	3	4	9	11	10	3	4	5	6	7	8	3	4