

# VIDOR "RIVIERA" CN351

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Four-valve, two waveband portable battery superhet using all-dry batteries HT, Vidor L5039 and LT, Vidor 21208. Made by Vidor, Ltd., Erith, Kent.

WHEN S1 is in the MW position the frame aerial windings L1 and L2 are connected in parallel and tuned by VC1. T1 is the MW trimmer. In the LW position of S1, then L2 only is left in circuit with T2 as LW trimmer.

The signal is fed to grid 4 of V1, a heptode frequency changer, via C4. AVC is applied via R1 with C4 as isolating capacitor.

S2 selects the oscillator tuned grid circuits L3, T3 on MW and L4, T4 on LW. C10 and C11 are the padders. L3 and L4 have adjustable iron-dust cores which provide further trimming, while VC2 is the oscillator tuning capacitor. C7, R2 supply leak-condenser bias to oscillator grid of V1. S3 connects the series-fed oscillator anode reaction coils L12 and L13 to grid 2 of V1. Screen voltage is derived from R3 decoupled by C12.

L5, C5, the primary of IFT1, a permeability-tuned iron-dust core IF transformer, is in the anode circuit of V1. L8, C6, the secondary, feeds the signal to grid of V2, an IF amplifier. AVC is applied to grid of V2 via R4 decoupled by C16. The screen of V2 is fed direct from HT line.

L5, C14, the primary of IFT2, a permeability-tuned iron-dust core IF transformer, is in the

anode circuit of V2. L9, C15, the secondary, feeds the signal to diode of V3.

R5 is the diode load, while R6, C17 and C18 form an IF filter. Full AVC voltages are applied to grids of V1 and V2 via R4 decoupled by C16.

C19 feeds the demodulated signal to R7, the volume control, and thence to grid of triode section of V3. R8 is the anode load of V3, and C20 passes the amplified signal to grid of V4, the output valve.

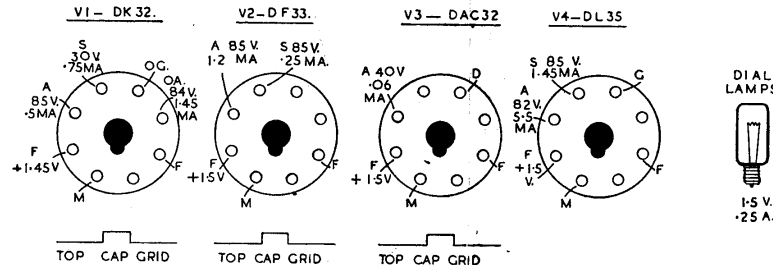
Negative bias developed across R10, which is in the HT negative return to chassis, is applied to grid of V4 through R9. C21 is the bias decoupling capacitor.

C22 provides fixed tone correction. L10, the secondary of output transformer, feeds L11, the LS speech coil.

HT is supplied from a 90V dry battery decoupled by C13. Filament supply is obtained from a high-capacity, low internal resistance 1.5V dry cell.

S4, the on/off switch, is in the negative filament supply lead.

S5, which is incorporated in the wave change knob and is spring loaded, allows dial lights to be switched in for tuning adjustments.



ALL READINGS TAKEN ON MODEL 7 AVOMETER

## RESISTORS

R	Ohms
1	1 meg
2	220 K
3	68 K
4	1 meg
5	470 K
6	47 K
7	2 meg variable
8	470 K
9	2.2 meg
10	820

## INDUCTORS

L	Ohms
1	2
2	22
3	1.2
4	3
5	11
6	11
7	600
8	11
9	11
10	.9
11	3
12	.9
13	2.2

## CAPACITORS

C	Mfds	Type
4	330 pf	Silver Mica
5	65 pf	Silver Mica
6	65 pf	Silver Mica
7	100 pf	Silver Mica
10	635 pf	Silver Mica
11	230 pf	Silver Mica
12	.1	Tubular 150 v
13	1.0	Tubular 150 v
14	65 pf	Silver Mica
15	75 pf	Silver Mica
16	.1	Tubular 150 v
17	100 pf	Silver Mica
18	100 pf	Silver Mica
19	.01	Tubular 350 v
20	.01	Tubular 350 v
21	50	Electrolytic 12 v
22	.005	Tubular 500 v

## TRIMMING INSTRUCTIONS

Apply Signal as below	Tune Receiver to	Adjust in Order stated for Max. Output
(1) 456 KC to grid V2 (Remove Grid Cap Connector and S/C VC2)	—	L9, L6, L8, L5
(2) 1,200 KC place signal generator output lead in a steady position near to receiver	250 metres	T3, T1
(3) 600 KC as above	500 metres	L3, L12. Repeat (2) and (3)
(4) 300 KC as above	1,000 metres	T4, T2
(5) 150 KC as above	2,000 metres	L4, L13. Repeat (4) and (5)

