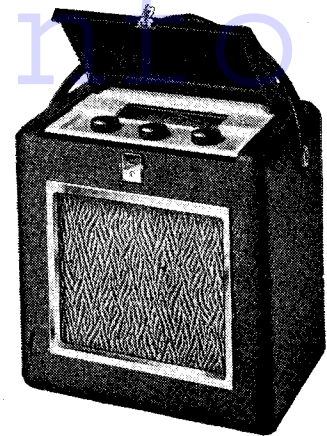


VIDOR 288 FOUR-VALVE PORTABLE



A neat four-valve two-band portable at 8 gns., the Vidor 288. A 108v. portable type H.T. Battery and a 2v. jelly acid accumulator are used in this set.

CIRCUIT.—Medium and long wave frame aerial windings constitute the grid coils of V1, the frequency changer. These are separately trimmed and are tuned by the aerial section of the gang condenser. The oscillator anode is connected directly to the reaction windings via a wave selection switch, and on the medium waves a regeneration modifier resistance, R3, is included.

An I.F. transformer, tuned to 473 kc., effects the coupling between V1 and V2, an H.F. pentode operating as the I.F. amplifier. V2 is A.V.C. controlled and the A.V.C. circuit decoupled by C8 and R10.

Another I.F. transformer provides the coupling between V2 and the demodulating diode of V3, a double diode triode, and also the corresponding demodulating load

R4. The rectified potentials then pass via an H.F. stopper resistance and L.F. coupling condenser to the manual volume control, R6, and thence to the grid of the triode section of V3.

The other diode of V3, fed from the anode of the I.F. amplifier via C11, provides a D.C. potential that is fed back as bias to the grid of V2 to give automatic volume control.

V3 is resistance capacity coupled to the pentode output valve V4. A pentode compensator condenser, C17, effects a fixed tone modification.

Battery equipment consists of a 108-volt portable type H.T. battery and a jelly acid type 2-volt accumulator.

Chassis Removal.—Take off the back of the cabinet and remove valves and batteries. Turn cabinet on side and remove turntable from the base by rotating the turntable until the three securing screws in turn can be removed.

Then remove the carrying strap and

unscrew the two studs from the side of the cabinet that secure the carrying strap. Next remove the escutcheon, which is held by two nuts inside the cabinet, and unsolder the wire to the dial lamp button.

Remove the two dial lamps from their securing brackets and close the lid. The chassis, speaker and frame aerial structure can then be removed as a complete unit.

To obtain access to the underside of the chassis, the black paper glued to the woodwork above the speaker should be removed.

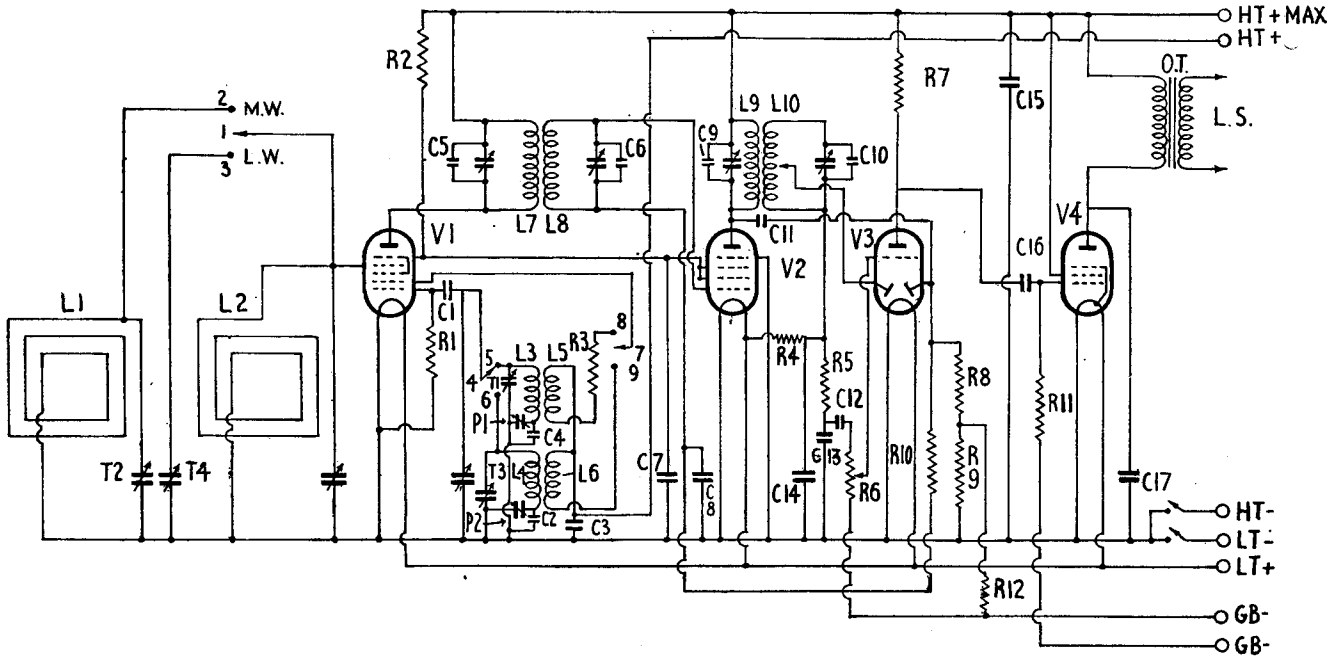
Special Notes.—There were several divergencies in the values of components in our particular chassis with the circuit provided, but with the aid of the chassis drawing no difficulty should be experienced. C5, C6, C9 and C10 are inside

CONDENSERS

| C. | Purpose. | Mfd.s. |
|----|--|--------|
| 1 | Osc. grid | .0002 |
| 2 | L.W. osc. fixed padder | .00018 |
| 3 | Osc. anode decoupling | .1 |
| 4 | M.W. osc. fixed padder | .0006 |
| 5 | I.F.T.1 prim. fixed trimmer | .0001 |
| 6 | I.F.T.1 sec. fixed trimmer | .0001 |
| 7 | V1 and V2 screens decoupling | .1 |
| 8 | V2 A.V.C. decoupling | .1 |
| 9 | I.F.T.2 prim. fixed trimmer | .0001 |
| 10 | I.F.T.2 sec. fixed trimmer | .0001 |
| 11 | A.V.C. diode coupling | .0001 |
| 12 | L.F. coupling | .01 |
| 13 | H.F. bypass | .0002 |
| 14 | H.F. bypass | .0002 |
| 15 | H.T. line bypass | .25 |
| 16 | L.F. coupling | .01 |
| 17 | Pentode compensator | .002 |

RESISTANCES

| R. | Purpose. | Ohms. |
|----|--|---------|
| 1 | Osc. grid leak | 50,000 |
| 2 | V1 and V2 screens decoupling | 30,000 |
| 3 | M.W. regeneration modifier | 1,500 |
| 4 | Demodulating diode load | 1 meg. |
| 5 | H.F. stopper | 10,000 |
| 6 | Volume control | 500,000 |
| 7 | V3 anode load | 50,000 |
| 8 | A.V.C. diode load (part) | 100,000 |
| 9 | A.V.C. diode load (part) | 100,000 |
| 10 | V2 A.V.C. decoupling | 500,000 |
| 11 | V4 grid resistance | 500,000 |
| 12 | A.V.C. delay volts | 100,000 |



Separate trimmers are provided for the medium and long wave frame aerial windings. On medium waves a regeneration modifier resistance is included in the reaction arrangement.

For more information remember

www.savoy-hill.co.uk

the corresponding I.F. transformer coil cans.

A small button on the wave selection control knob shaft switches on two dial lights when pressed. The dial lights have M.E.S. bases and are mounted in holders clipped to brackets behind the wavelength scale. They are rated at 2.6 volts .3 amp.

The cabinet is fitted with a lid that can be locked to prevent unauthorised operation, and a snap catch secures the lid for normal purposes.

Circuit

Alignment Notes

I.F. Circuits.—Connect an output meter across the primary of the speaker transformer, short-circuit the oscillator section of the gang and turn volume control to maximum. Connect a service oscillator

between the top grid cap of V1 and chassis and shunt with a 250,000-ohms resistance.

Tune the service oscillator to 473 kc. and adjust first the trimmers of I.F.T.2 and then I.F.T.1 for maximum response, reducing the input from the service oscillator as the circuits come into line to render the A.V.C. inoperative.

Signal Circuits.—Remove the short circuit from the oscillator section of the gang, replace normal top grid of V1, and connect the live side of the service oscillator to a length of wire and bring it near the frame aerial windings. Only inject sufficient input from the service oscillator to obtain reliable peaks in the output meter. Progressively reduce the input as the circuits come into line.

If the receiver is exceptionally weak at the top ends of the bands, then the padders will need adjustment when the chassis will have to be removed. Otherwise adjustment of the aerial and oscillator trimmers may be carried out with the receiver mounted in the case.

Medium Waves.—Tune set and oscillator to 220 metres (1,363 kc.) and adjust the M.W. oscillator trimmer T1 to bring in signal, then T2 (upper trimmer on bakelite strip on side of cabinet) for maximum response.

Tune set and oscillator to 500 metres (600 kc.), and adjust P1 for maximum, simultaneously rocking the gang.

Repeat both operations until no further improvement results.

Long Waves.—Tune set and oscillator to 1,000 metres (300 kc.) and adjust T3 and then T4 for maximum response. T4 is the lower trimmer on the bakelite strip on the side of the cabinet.

Tune set and oscillator to 2,000 metres (150 kc.) and adjust P2 for maximum, simultaneously rocking the gang.

Repeat both operations until no further improvement results.

R.G.D.718 THREE BAND

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Long Waves.—Tune set and oscillator to 800 metres (375 kc.), adjust T1, T2 and then T3 for maximum response.

Tune set and oscillator to 2,000 metres (150 kc.), and adjust P1 for maximum, simultaneously rocking the gang.

Repeat both operations until no further improvement results.

Medium Waves.—Tune set and oscillator to 220 metres (1,363 kc.), and adjust T4, T5 and then T6 for maximum.

Tune set and oscillator to 550 metres (545 kc.), and adjust P2 for maximum, simultaneously rocking the gang.

Vidor 288 on Test

MODEL CN288.—Standard model for battery operation requiring a Vidor 108-volt H.T., Type 17872, and a Vidor 2-volt 25 A.H. accumulator, Type 11581. PRICE 8 gns.

DESCRIPTION.—Four-valve, two-waveband, superhet portable.

FEATURES.—Contained in attractive leatherette-covered case with detachable carrying strap. Top of cabinet fitted with a lid which covers a white control panel. A lock and key is provided. Full-vision dial, calibrated in metres and station names. Controls for waveband selection, tuning and combined volume and master switch. Small button provided to control operation of dial light.

LOADING.—H.T. 9.6 m.a. L.T. 0.55 amp.

Sensitivity and Selectivity

MEDIUM WAVES (200-550 metres).—Quite good gain giving all the main stations in daylight. Sensitivity well maintained and background good.

LONG WAVES (1,000-2,000 metres).—Very good sensitivity. All main stations easily received with no interference.

Acoustic Output

Representative volume for a small battery portable with a well-balanced output. No undue colouration on speech and general pleasing tone.

VALVE READINGS

No signal. Volume maximum. M.W. band min. capacity. New batteries.

| V. | Type. | Electrode. | Volts. | Ma. |
|----|-------------------------------|---------------|--------|-----|
| 1 | Mullard's except (3). FC2A | Anode .. | 102 | 1.1 |
| | | Screen .. | 44 | 1.2 |
| | | Osc. anode .. | 112 | 1.2 |
| 2 | VP2B | Anode .. | 102 | 1.7 |
| | | Screen .. | 44 | .6 |
| 3 | Mazda. HL 2 DD | Anode .. | 58 | .3 |
| | | Anode .. | 100 | 3.2 |
| 4 | PM 22A | Screen .. | 102 | .3 |

WINDINGS (D.C. Resistances)

| L. | Ohms. | Range. | Where measured. |
|------------|-------|--------|--------------------------|
| 1 .. | 2.6 | M.W. | Top grid V1 and chassis. |
| 2 .. | 30 | L.W. | Top grid V1 and chassis. |
| 3 .. | 6 | M.W. | C1 and P1. |
| 4 .. | 5.4 | L.W. | C2 and P2. |
| 5+R3 | 2300 | — | Osc. anode V1 and C13. |
| 6 .. | 3 | — | Osc. anode V1 and C3. |
| 7 .. | 5.8 | — | Anode V1 and screen V4. |
| 8 .. | 6.8 | — | Top grid V2 and C8. |
| 9 .. | 6 | — | Anode V2 and screen V4. |
| 10 .. | 3.8 | — | R4+R5 and diode V3. |
| O.T. prim. | 800 | — | Across tags. |

Right, the switch connections of the Vidor CN 288. Below is shown the chassis layouts, left being the view from above and right the underside.

