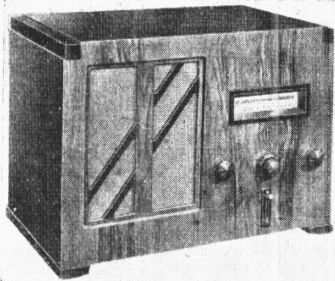


"TRADER" SERVICE SHEET

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COSSOR 435

AC TRF RECEIVER



THE Coszor 435 is a 3-valve (plus rectifier) 2-band TRF receiver, suitable for AC mains of 200-250 V, 40-100 C/S.

There is provision for the connection of a gramophone pick-up and an external speaker. A switch on the pick-up jack causes both scale lamps to light when the plug is inserted in its socket.

Release date and original price: 1934; £9 15s.

CIRCUIT DESCRIPTION

On MW, switches **S1** and **S2** are closed; aerial input is then via series condenser **C1** to a tapping formed by the junction of **L2** and **L3**, the MW tuning coil, by **S1**, **S2**. On LW, input is via **C1** and series choke **L1** to tapping on LW tuning coil **L4**, **L5**; **S1**, **S2** being open. The circuit is tuned by **C14**, with manual trimming by **C15**.

First valve (**V1**, **Cossor metallised**

MVSG) is a variable-mu RF tetrode operating as signal frequency amplifier with gain control by potentiometer **R3**, which forms part of potential divider with **R1**, **R2**. **R4** limits the minimum GB that may be applied to **V1**. **L12** is an anti-parasitic choke in the screen lead.

Tuned-anode coupling by **L8**, **L9** (MW) and **L10**, **L11** (LW) with **C17**, the coils being tapped like the aerial coils, between **V1** and an RF pentode valve (**V2**, **Cossor metallised MS/Pen**) which operates as grid leak detector with **C5** and **R6**. Reaction is applied from anode via coupling coils **L6** (MW) and **L7** (LW) and controlled by **C16**. RF filtering by **C8** in anode circuit. Provision by means of a switched jack for connection of gramophone pick-up in control grid circuit, and when it is in circuit, GB is obtained from drop along **R8** in cathode circuit.

Resistance-capacity coupling by **R7**, **C9** and **R9**, via grid stopper **R10**, between **V2** and pentode output valve (**V3**, **Cossor MP/Pen**). Fixed tone correction by **R11**, **C10** in anode circuit. Provision for connection of high-impedance external speaker, also in anode circuit.

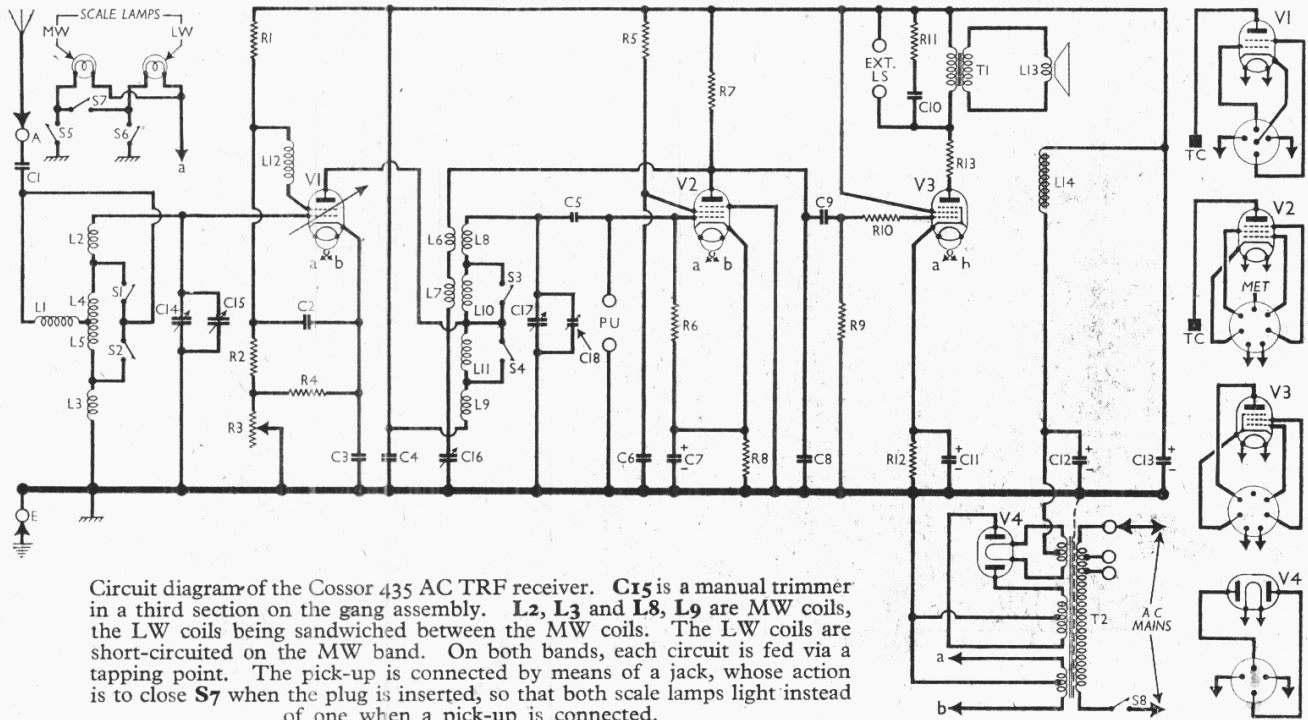
HT current is supplied by full-wave rectifying valve (**V4**, **Cossor 442BU**), Smoothing by speaker field **L14** and electrolytic condensers **C12**, **C13**. Scale lamps are controlled by switches **S5**, **S6** according to waveband in use, but a switch, **S7**, associated with the pick-up jack, closes when a pick-up is connected, so that both lamps light on gram.

COMPONENTS AND VALUES

RESISTANCES		Values (ohms)
R1	V1 SG HT potential divider	40,000
R2		25,000
R3	V1 gain control	12,000
R4	V1 fixed GB resistance	100
R5	V2 SG HT feed	500,000
R6	V2 grid leak	500,000
R7	V2 anode load	100,000
R8	V2 PU GB resistance	1,000
R9	V3 CG resistance	500,000
R10	V3 grid stopper	100,000
R11	Part fixed tone corrector	10,000
R12	V3 GB resistance	350
R13	V3 anode stopper	100

CONDENSERS		Values (µF)
C1	Aerial series condenser	0.0001
C2	V1 SG decoupling	0.1
C3	V1 cathode by-pass	0.1
C4	HT circuit RF by-pass	2.0
C5	V2 CG condenser	0.000025
C6	V2 SG decoupling	0.1
C7*	V2 PU cathode by-pass	50.0
C8	RF by-pass	0.0002
C9	V2 to V3 AF coupling	0.01
C10	Part fixed tone corrector	0.01
C11*	V3 cathode by-pass	50.0
C12*	HT smoothing condensers	6.0
C13*		2.0
C14†	Aerial tuning condenser	—
C15†	Aerial manual trimmer	—
C16†	Reaction control	0.0005
C17†	V1 anode tuning	—
C18†	V1 anode MW trimmer	—

* Electrolytic. † Variable. ‡ Pre-set.



Circuit diagram of the Coszor 435 AC TRF receiver. **C15** is a manual trimmer in a third section on the gang assembly. **L2**, **L3** and **L8**, **L9** are MW coils, the LW coils being sandwiched between the MW coils. The LW coils are short-circuited on the MW band. On both bands, each circuit is fed via a tapping point. The pick-up is connected by means of a jack, whose action is to close **S7** when the plug is inserted, so that both scale lamps light instead of one when a pick-up is connected.

