

REGENTONE**Models A478, C478, ARG478**

General Description : Eight-valve (including rectifier), four-waveband superheterodyne receiver with push-pull output stage and spin-wheel tuning. Similar chassis are incorporated in table model (A478), console (C478) and auto-radiogramophone (ARG478). Released April 1948.

Power Supplies : A.C. mains, 100-110 and 200-250 volts, 40-100 c/s. Consumption 80 watts.

Wavebands : S.W.2 13-26 m. (23-11.5 Mc/s.); S.W.1 25-50 m. (12-6 Mc/s.); M.W. 190-550 m. (1600-550 kc/s.); L.W. 900-2000 m. (330-150 kc/s.).

Intermediate Frequency : 465 kc/s.

Valves : (V1) ECH35; (V2) EF39; (V3) EBC33; (V4) EM34 (tuning indicator); (V5) EBC33 (phase splitter); (V6 and V7) EL32s; (V8) 5Z4 or AZ31 (*Note* not interchangeable.)

In a few early models the valves were: 6K8G, 6K7G, 6Q7G, —, 6V6Gs, 5Z4 and Y63.

Dial Lamps : Three 6.5 volts, 0.3 amp.

Audio Output : 9 watts.

Ext. Loudspeaker : Impedance 2.5 ohms.

Alignment Procedure :

General : Output should be maintained at approximately 50 mW. by progressively reducing the signal input. Set volume control to maximum gain position. The pointer should coincide with the black datum lines at the ends of the scale with the gang fully open and fully enmeshed. A special core-trimming tool should be used, and the gang should be rocked slightly whilst making adjustments at the low-frequency alignment points.

I.F. : Set receiver to M.W. with gang fully enmeshed. Inject 465-kc/s. signal to control grid of V1 and adjust cores of the second I.F. transformer and then those of the first I.F. transformer in the order secondary-primary.

R.F. : Connect output from signal generator to aerial and earth sockets via dummy aerial, and adjust in the following order. Repeat alignment of each band until no further improvement can be obtained.

<i>Circuits</i>	<i>Tune Receiver to</i>	<i>Tune Signal Generator to</i>	<i>Adjust for Maximum Response</i>
L.W.	1000 m. 2000 m.	300 kc/s. 150 kc/s.	VC10, then VC4 Core L.W. Osc.
M.W.	200 m. 500 m.	1500 kc/s. 600 kc/s.	VC9, then VC3 Core M.W. Osc.
S.W.1	11 Mc/s. 6 Mc/s.	11 Mc/s. 6 Mc/s.	VC8,* then VC1 Core S.W.1. Osc.
S.W.2	22 Mc/s. 12 Mc/s.	22 Mc/s. 12 Mc/s.	VC7,* then VC1 Core S.W.2. Osc.

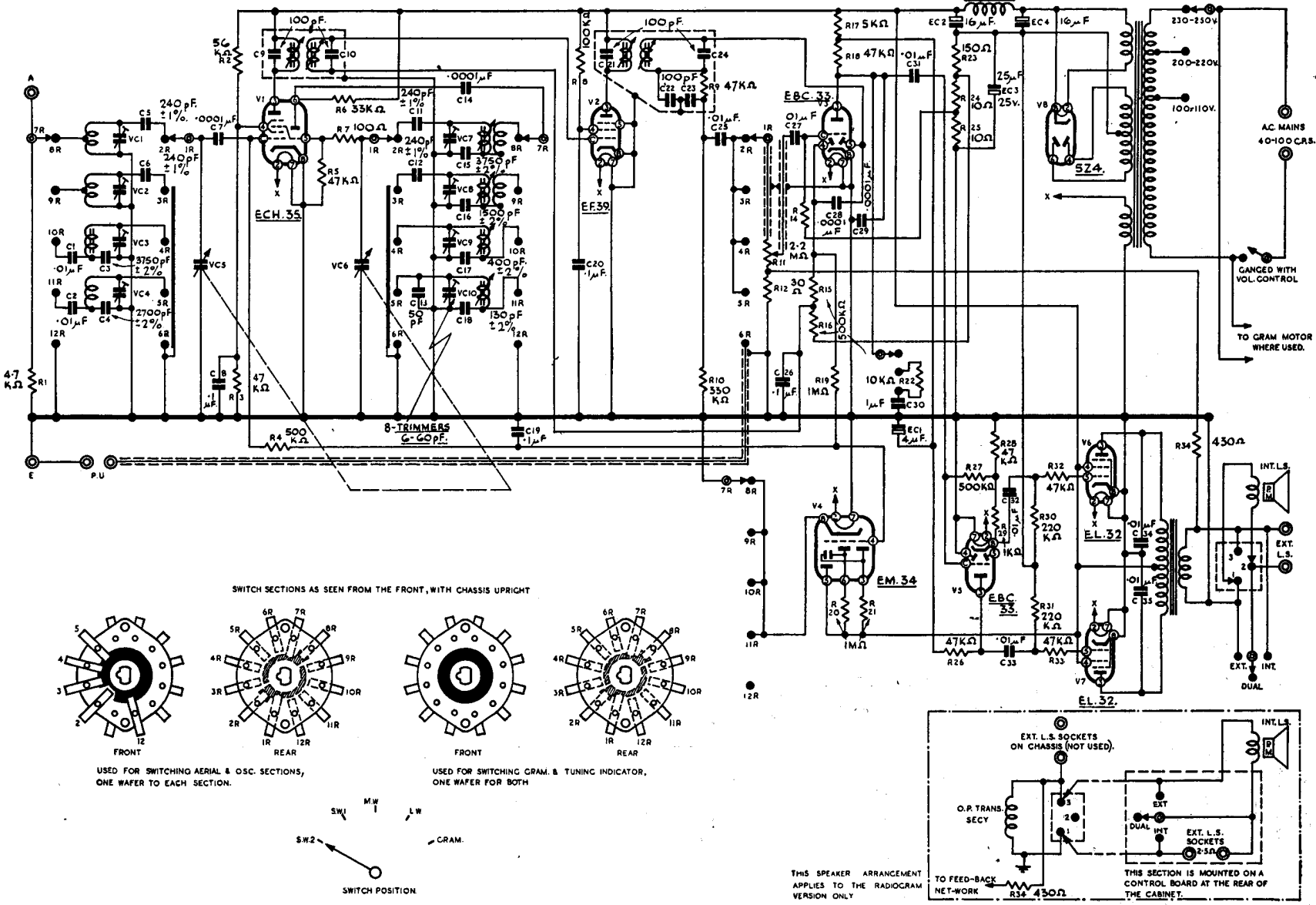
* Least capacity position.

(continued on page 190)

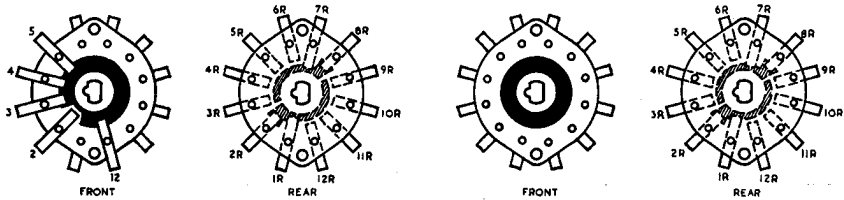
REGENTONE—MODELS A478, C478, ARG478 (continued from page 184).

	<i>Anode</i>	<i>Screen</i>	<i>Osc. Anode</i>	<i>Cathode</i>
V1	210 v.	80 v.	90-120 v.	—
V2	210 v.	65-70 v.	—	(50 v. not oscillating) Grid leak to $\frac{1}{2}$ v. AVC
V3	65 v.	—	—	Grid leak to -1 v. bias chain
V5	90 v.	—	—	53 v.
V6	200 v.	210 v.	—	Full bias 15 v.
V7	200 v.	210 v.	—	Full bias 15 v.

CIRCUIT DIAGRAM—REGENTONE MODELS A478, C478, ARG478

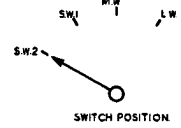


SWITCH SECTIONS AS SEEN FROM THE FRONT, WITH CHASSIS UPRIGHT

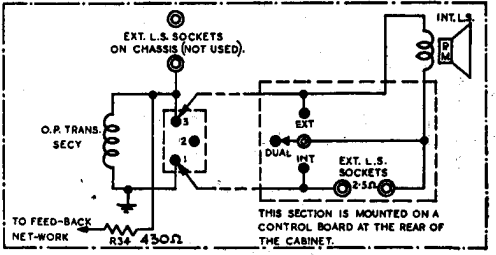


USED FOR SWITCHING AERIAL & OSC. SECTIONS, ONE WAFER TO EACH SECTION.

USED FOR SWITCHING GRAM. & TUNING INDICATOR, ONE WAFER FOR BOTH.



THIS SPEAKER ARRANGEMENT APPLIES TO THE RADIOGRAM VERSION ONLY



THIS SECTION IS MOUNTED ON A CONTROL BOARD AT THE REAR OF THE CABINET.