

LEKMEK RADIO LABORATORIES

TECHNICAL DATA

Model No.
(5 Sheets)
Sheet No. 1.

LEKMEK RANGE OF
ELECTRIC AND BATTERY OPERATED RECEIVERS
BROADCAST AND ALL WAVE.

MODEL 45EM SHORT WAVE CONVERTER

Valves 1/57, 1/56, 1/58, 1/80

Operation Electric 240 volts A.C.

Cabinet Table, suitable for standing on top of console cabinet.

Controls Station Selector, Wave Band Selector, and Short Wave Vernier.

Circuit Short Wave Detector 57 valve, separate oscillator 56 valve, and one stage of Intermediate Frequency at 585KC, using a 58 type valve. The range of this Short Wave Converter depends upon the sensitivity of the Broadcast set. Excellent results on 4, 5 and 6-valve Supers.

General For use with any standard Broadcast Receiver which is sensitive enough to receive Interstate Stations. Short Wave Bands cover 10-20, 20-40, 40-80 and 80-100 Metres.

MODEL 45BM SHORT WAVE CONVERTER

Valves 2/32, 1/30

Operation Battery. The same battery supply as Broadcast Receiver may be used with the short wave converter, as the drain is negligible. Filament 2 volts of .1 amps. The B Battery 135 volts at 5 m.a.

Cabinet Similar to 45EM

Controls " " "

Circuit The Circuit arrangements are similar to the 45EM.

General The Range of the Battery Short Wave Converter is equal to that of the Electrically operated model.

MODEL 58EM

Valves 2/57, 1/58, 1/2A5, 1/80

Operation Electric, 240 volts A.C.

Cabinet Piano Finished Mantel type.

Model 58EM contd. next sheet.

MODEL 58EM (contd.)

Controls A station selector and volume control. The aerial is also attached to the Chassis.

Circuit Autodyne detector-oscillator 57 type valve, one stage of intermediate Frequency, 465KC 58 type valve, second detector 57 valve, output 2A5 penthode, Amplion Q25 type Dynamic Speaker, 8" cone.

General Good reception on all local stations. Interstate at night.

MODEL 58EC

Similar to 58EM in all respects, except that it is fitted to a Consolette cabinet.

MODEL 51EC

Valves 2/57, 1/58, 1/2A5, 1/80

Operation Electric, 240 volts A.C.

Cabinet Piano finished Console, veneered Walnut.

Controls 3 Controls, Station selector, volume control and tone control

Circuit Pre-selector stage, followed by autodyne detector-oscillator type 57 valve, an intermediate stage of 186KC 58 type valve, second detector 57 valve, resistance coupled to 2A5 valve penthode. Amplion Q25 Dynamic Speaker.

General A good all-round receiver; good interstate and local reception. Pre-selector stage offers protection from station interference and two spot tuning.

MODEL 62EC

Valves 2/57, 2/58, 1/2A5, 1/80

Operation Electric, 240 volts A.C.

Cabinet Similar to 51E, piano finished console.

Controls Station Selector, volume control and tone control.

Circuit Radio Frequency Stage 58 valve, autodyne detector oscillator 57 valve, Intermediate Frequency stage of 186KC 58 type valve, second detector 57 type valve, resistance coupled to 2A5 penthode output valve. Amplion Q25 type Dynamic speaker.

General Exceptional sensitivity, daylight range proved to exceed 1,000 miles. Full interstate and overseas night reception. Excellent for country areas where daylight reception is necessary.

MODEL 71EC

<u>Valves</u>	2/58, 1/57, 1/55, 2/2A5, 1/80
<u>Operation</u>	Electric 240 volts A.C.
<u>Cabinet</u>	Piano finished console.
<u>Controls</u>	Four controls, station selector, volume and tone controls and muting switch.
<u>Circuit</u>	Pre-selector followed by 58 valve as R.F. Stage. 57 type valve as 1st Detector Oscillator, then a stage of I.F. amplification at 186KC 58 valve, the second detector being a type 55 valve which is resistance coupled to two 2A5 valves in push pull, the output of which is handled by a Q125 Amplion Dynamic Speaker.
<u>General</u>	Excellent tone and a fine Broadcast Receiver.

MODEL 803

<u>Valves</u>	1/57, 3/58, 1/2A6, 2/2A5, 1/80
<u>Operation</u>	Electric 240 volts A.C.
<u>Cabinet</u>	High quality console, piano finished.
<u>Controls</u>	Station Selector with Aeroplane Dial, tone control and volume control.
<u>Circuit</u>	R.F. Stage 58 type valve, autodyne detector oscillator stage 57 type valve, followed by two stages of intermediate frequency 186KC 58 valves, second detector 2A6 valve, resistance coupled to 2/2A5's in push pull, Amplion Q075 Speaker.
<u>General</u>	Excellent tone; high sensitivity and selectivity. An outstanding Broadcast Receiver.

Special Note: The 803 is optional to the 71EC, the latter being of equal value as it embodies a pre-selector stage as against the extra I.F. stage of the 803. The 803 was made for purely sales attraction by offering an 8-valve Broadcast Receiver to compete against the 701 (7-valve) All Wave Receiver at approximately the same price. We shall continue to supply the 71EC but it has been omitted from the new pamphlet to keep the number of models to a minimum.

MODEL 701

<u>Valves</u>	2/58, 1/57, 1/56, 1/2A6, 1/2A5, 1/80
<u>Operation</u>	Electric, All Wave 240 volts A.C.
<u>Cabinet</u>	Piano finished console.

MODEL 701 (contd.)

Controls Aeroplane dial, calibrated in metres. Four Bands, 200-550, 45-100, 20-45, and 10-25 metres, with ample overlap on each band. The controls are:- Station Selector, Wave Band Selector, Short Wave Vernier, volume and tone control.

Circuit Broadcast signal passes through a pre-selector circuit to the detector oscillator valve type 57, thence to two stages I.F. amplification at 465KC 58 type valves; second detector is type 2A6 valve which is resistance coupled to a 2A5 type valve. Amplion Q25 Speaker. The Short Wave signal is handled in a different manner, as it is fed directly to the 1st detector, and a type 56 valve is used as a separate oscillator.

General An excellent all round Receiver for Short Wave and Broadcast reception.

MODEL 1101 (11EC)

Valves 11 Valves: 2/57, 1/56, 4/58, 1/2A6, 2/2A5, 1/80

Operation Electric All Wave 240 volt A.C.

Cabinet Exceptionally fine piano finished console.

Controls Station Selector, (which is fitted with an aeroplane dial, the scale being calibrated in metres in steps from 10-20, 20-40, 40-80, 80-200, 200-550 metres). A Wave Band Selector, Short Wave Vernier, tone and volume control are also used.

Circuit The circuit is the same as the 11EC, yet the components have been rearranged, the use of a split gang condenser allowing single dial tuning. The Short Wave Signal is fed direct to the 57 valve Short Wave Detector with which a separate oscillator type 56 is used. This stage is followed by an I.F. stage at 595KC type 58 valve, which is coupled to the Broadcast section with a special coupling coil. The Broadcast section is exactly the same as Model 803 described herein.

General Fine tone and exceptionally sensitive, guaranteed results in all localities on Short Wave and Broadcast Bands. The Wave-band coverage is from 10 to 550 metres.

MODEL 401

Valves 1/6F7, 1/32, 1/15, 1/33

Operation Batteries. 3-45 volt heavy duty B Batteries
1-6 volt Accumulator
1-22.5 C Battery

Cabinet Polished console cabinet.

Controls Three controls, battery switch, station selector, and volume control.

MODEL 401 (contd.)

Circuit The 1st valve, a type 6F7 acts as detector and also as a separate oscillator. This stage is followed by one stage of I.F. at 465KC. The second detector is a 15 type valve, which is choke coupled to the 33 type output valve. An Amplion Permagnetic Speaker is used.

General Fair daylight and good night reception. Very reliable Battery receiver owing to separate oscillator system.

MODEL 601

Valves 4/15, 1/6F7, 1/19

Operation Batteries. 3-45 volt extra heavy duty B Batteries (C Battery not reqd.)
1-6 volt accumulator 90 ampere he cap.
B Battery drain 9-12 ma. A drain .75 amp.

Cabinet Full piano finished console.

Controls Four controls, Battery Switch, Station Selector, tone and volume controls.

Circuit R.F. Stage 15 type valve, followed by 6F7 type valve as 1st detector and as separate oscillator. A 15 type valve is used in the I.F. stage, second detector and driver stages, the output is handled by a 19 type valve in B Class. An Amplion Permagnetic type speaker is supplied.

General Excellent tone, sensitivity and selectivity; without doubt an outstanding Battery Receiver.

MODEL 802

Valves 6/15, 1/76, 1/19

Operation Battery All Wave. Batteries required are: 1-6 volt accumulator 90 amp. hour and 3 only 45-volt extra heavy duty B Batteries. Bias Batteries are not required with this receiver. B drain 11-16 m.a. A drain 1 amp.

Cabinet Piano finished console.

Controls Station Selector, Wave Band Selector, Short Wave Vernier, tone control and volume control and Battery On-off Switch. The Wave Band Selector covers the following wave-lengths 200-550, 45-100, 20-45, and 10-25 metres. An aeroplane dial is fitted to this receiver and the scale is calibrated in metres from 10-550 metres.

Circuit The Broadcast Signal passes through Radio Frequency Stage 15 type valve, to the first detector type 15 valve, a separate oscillator type 76 valve is used, then two stages of intermediate frequency, 15 valves, second detector 15 valve, driver stage 15 type valve, Class B Audio Transformer coupled to an output valve type 19. Permagnetic Speaker. The Short Wave Signal is handled similarly, except that the signal is transferred direct to the detector-grid and not through the R.F. stage.

General This receiver is exceptionally sensitive and has excellent tone on both the Broadcast and Short Wave Bands.

PRICE LIST

<u>MODEL</u>	<u>CODE WORD</u>	<u>PRICE</u>
45EM	Pythagoras	£17.11. 6
45BM	Archimedes	£15.15. 0
58EM	Hercules	£15.12. 6
58EC	Achilles	£17.15. 0
51EC	Euclid	£28. 5. 0
62EC	Demosthenes	£31. 7. 6
71EC	Apollo	£40.10. 6
803	Aristotle	£40.10. 6
701	Diogenes	£39.15. 0
1101	Homer	£51.19. 6
401	Ajax	£30.17. 6
Less Batts.	Caesar	£25. 4. 0
601	Ulysses	£41. 5. 0
Less Batts.	Alexander	£36. 1. 6 3/4
802	Plato	£52.10. 0
Less Batts.	Hannibal	£46. /6. 0