

EKCO

CAR
RADIO

Model CR117
Operating
Instructions



Ekco Car Radio Model CR117 is supplied with the speaker and receiver as one unit and a separate power pack. The speaker which is mounted in a moulded case may be detached and mounted separately if required.

Ekco is renowned for its pre-eminence in the practical application of all the best technique in radio and television.

By patent exchange agreements with other important British and foreign research organisations, the best developments not only of the Ekco Laboratories but also those of all the most important laboratories of the World are incorporated in Ekco products.

EKCO CAR RADIO

Ekco Car Radio Model CR117—a 5-valve plus rectifier superhet receiver—has been designed for utmost simplicity and reliability in operation.

The design incorporates :

- Provision of both press-button selection and manual tuning ;
- Instantaneous selection of three pre-set medium-wave stations and free tuning on the medium and long wavebands ;
- Simple adjustment of pre-set stations by the user ;
- Dazzle-free edge-lit tuning scale with light dimming control ;
- Three position negative feed-back tone control ;
- Flexibility and ease of installation ;
- Low battery drain and ample output.

These detailed instructions are for the benefit of the owner who wishes to take a more than causal interest in the many unique features which contribute to its high performance . . . and in particular for any who may decide to change the pre-set press-button stations available. The terms of the Ekco Guarantee are also set out herein, together with a list of Service Depots where advice may always be obtained.

No installation matters are dealt with in this booklet. You are advised to refer to a fully qualified EKCO Car Radio specialist in case of difficulty (under the terms of the Ekco Guarantee).

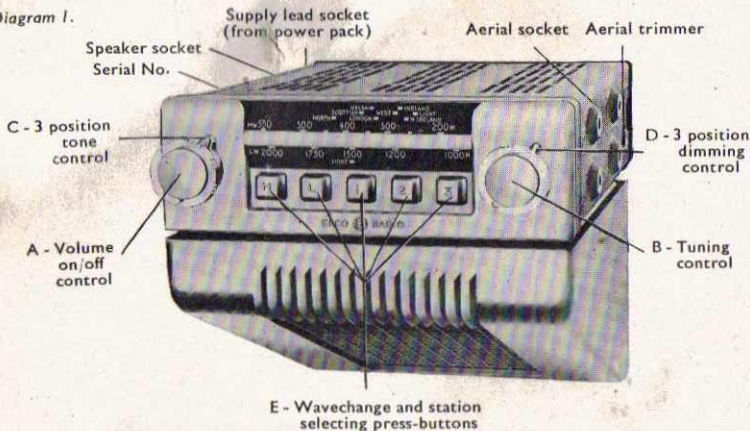
Controls

The controls provided, which are all clearly shown in Diagram 1, are:—

- (a) *Combined on-off Volume Control.*
- (b) *Manual tuning station selecting control.*

The high degree of automatic gain control in the circuit assists in bringing-in near and distant stations at substantially the same volume level. This advantage, however, should be treated with respect as it is correspondingly easy to "accept" a strong station before it is perfectly in tune.

Diagram 1.



(c) *Three-position tone control.*

This three-position switch gives the user a choice of tonal balance to suit :

- (a) Vehicle conditions ; (b) Broadcasting conditions ;
(c) Personal listening taste.

In general it will be found that the clockwise, or mellow position is suitable for listening to musical programmes at low driving speed, or in stationary vehicles. The centre, or normal position, provides greater clarity of speech. High fidelity on the anti-clockwise position provides even greater clarity at higher speeds.

(d) *Pilot lamp control.*

Full brilliance, half brilliance and off positions are provided on the light dimmer giving maximum safety.

(e) *Wavechange and station selecting press-buttons.*

The two left-hand press-buttons select the waveband required for manual tuning (medium-wave—190–550 metres—extreme left; long-wave—1,000–2,000 metres—second from left), the remaining three buttons select the pre-set medium-wave stations and automatically render the manual tuning control inoperative. (See “How to change Pre-set Stations” for press-button waverange coverage).

Pre-set Stations

On leaving the factory the receiver is pre-set to receive the following stations :—

Button 1 North. Button 2 London. Button 3 Midland.

Valves

The following valves are employed, all being Mullard B8A types. Only these types should be used if replacement is necessary at any time.

- EF 41. R.F. Amplifier. ECH 42. Mixer-Oscillator.
EAF 42. Pentode, I.F. Amplifier, Diode Detector and A.V.C.
Inter-station noise suppressor.
EF 41. A.F. Amplifier. EL 42. Output.
EZ 41. Power Rectifier.

Consumption

2.7 amps at 12 volts. 4.5 amps at 6 volts.

Fuse

The fuse will be found in the bayonet-catch connector in the battery supply lead. In the event of this requiring replacement, use the following types :—

- 5 amp rating fuse for 12 volt model.
10 amp rating fuse for 6 volt model.

When replacing the fuse, care should be taken that the tubular insulator is correctly in position inside the fuse holder.

Interference

Interference is reduced by thorough screening of all connections to the set and filters in the power unit and receiver.

OPERATING INSTRUCTIONS

Manual tuning

- (1) Switch on by turning the combined on-off Volume Control clockwise (see a, Diagram 1).
- (2) Select waveband required by pressing the appropriate button—medium-wave, extreme left; long-wave, second from left (see c, Diagram 1).

- (3) Tune in station required by means of the tuning control (see b, Diagram 1).
- (4) Adjust volume (see a, Diagram 1).
- (5) Adjust tone by means of the three-position tone control (see c, Diagram 1).
- (6) The pilot lamps may then be adjusted (see d, Diagram 1) to provide the amount of lighting required.

Press-button tuning

- (1) Switch on by turning the combined on-off Volume Control clockwise (see a, Diagram 1).
- (2) Press the appropriate button, of the three situated to the right, on which the required station has previously been pre-set.
- (3) Adjust volume (see a, Diagram 1).
- (4) Adjust tone by means of the three-position tone control (see c, Diagram 1).
- (5) The pilot lamps may then be adjusted (see d, Diagram 1) to provide the amount of lighting required.

HOW TO CHANGE PRE-SET STATIONS

Diagram 2.



The waveranges covered by the pre-set press-buttons are :—

Button 1	325-485 metres	930-620 Kc-s.
Button 2	245-370 metres	1220-810 Kc-s.
Button 3	200-300 metres	1500-1000 Kc-s.

In order to change one of the pre-set press-buttons to a different station from that already pre-tuned, it is necessary to ascertain the wave-length of the station required (see tables, pages 6, 7 and 8) and find which of the above waveranges covers the frequency of the desired station. You will see that the waveranges overlap so that you can set up two adjacent stations.

Having decided on which range you wish to set the required station, proceed as follows :—

1. Switch on and turn the volume control to approximately half volume, leaving it in this position for at least five minutes.
2. Remove the bevelled tuning scale by pushing upwards and sliding out of its grooves. This will reveal the six adjusting holes and screws marked as shown in Diagram 2.
3. Press the button you wish to change.
4. Ensure that the tuning drive pulleys do not obstruct the holes corresponding to the button being adjusted (i.e. 1o and 1a, 2o and 2a, 3o and 3a.) These can be moved to one side by rotating the manual tuning control. Care should also be taken to avoid the drive cord by inserting the setting tool (see 5 below) at an angle and easing the cord to one side.
5. By means of the station setting tool provided, rotate the appropriate pair of Oscillator and Aerial screws to zero position which is fully anti-clockwise. (If press-button station No. 1 is to be changed then adjust 1o and 1a screws).

Note: This may take several turns or only half a turn. Do not press the screws or force them in any way past the stops or damage will result.

6. Turn the Oscillator (o) screw, of the pair being re-set in a clockwise direction the appropriate number of turns as shown for the required station in the Adjustment Guide Tables on pages 6, 7 and 8.
7. Similarly screw the Aerial (a) adjustor the appropriate number of turns.
8. Very carefully turn the Oscillator (o) adjustor clockwise and anti-clockwise until the clearest reception is obtained from the required station.

9. Similarly turn the Aerial (a) adjustor clockwise and anti-clockwise for maximum volume and minimum interference.
10. Check that the correct station has been pre-set by reverting to manual operation and tuning in the station against its correct wavelength on the medium-wave scale.

IMPORTANT. The maximum number of turns, from zero, is 18 for the Oscillator screw and 22 for the Aerial. Do not turn the screws beyond these points as it is liable to result in the tuning keys losing their grip.

Aerial Trimmer

The aerial should be matched to the receiver at the time of installation. It is not necessary for the user to alter the adjustment in any way unless the aerial or aerial lead is modified at a later date. Then the aerial trimmer must be re-adjusted.

Select a medium-wave station received at the weakest strength. By using the 4BA box spanner end of the trimming tool provided, adjust the aerial trimmer (see Diagram 1) until the station is received at maximum strength with minimum interference.

B.B.C. STATIONS RELATED TO DISTRICTS

District	Home	Light
London Area and Home Counties	330.4 m.	247.1 m.
South-East Coast	330.4 m.	247.1 m. 1,500 m.
South-West Coast	285.2 m.	1,500 m.
Cornwall	285.2 m.	247.1 m. 1,500 m.
Severn Channel Area	205.9 m. 285.2 m. 340.5 m.	1,500 m.
North Wales	433.5 m. 340.5 m.	1,500 m.
Midlands	275.7 m.	1,500 m.
Lancashire and Yorkshire	433.5 m.	247.1 m. 1,500 m.
North-East England	260.6 m. 433.5 m.	247.1 m.
Scotland	370.8 m.	247.1 m.
Northern Ireland	260.6 m.	247.1 m.

STATION ADJUSTMENT GUIDE—B.B.C. STATIONS

Station	Metres	Press Button	Approx. turns	
			OSC.	AER.
Light Programme	247.1 m.	3	11	11½
		2	1½	2½
London Home	330.4 m.	2	12	15
		1	3	2
Midland Home	275.7 m.	3	14	16
		2	7	7½
North Home	433.5 m.	1	12½	14
North Ireland Home	260.6 m.	2	5	5½
		3	12½	13½
Scottish Home	370.8 m.	1	7½	8
Third Programme	463.7 m.	1	15	18
Welsh Home	340.5 m.	2	13	16½
West Home	285.3 m.	2	8	9
		3	15½	17½

FOREIGN STATIONS

Station	Metres	Press Button	Aprox. turns	
			OSC.	AER.
Athlone II	240 m.	3	10	10
Brussels II	324 m.	2	11½	14
Hilversum II	297.9 m.	2	9	10½
Hilversum I	402 m.	1	10	11
Lille	235 m.	3	9½	9½
Luxembourg	208 m.	3	5	4
Paris	348 m.	1	5½	5
Strasbourg	218 m.	3	7	6½

Vibrator

Normally the only component which requires replacement—and that at long intervals—is the vibrator. Average vibrator life is equivalent to upwards of 30,000 miles normal motoring.

Pilot Lamp

The 12v. model employs two 12v. 2.2 watt M.E.S. bulbs and the 6v. model two 6v. 1.8 watt M.E.S. bulbs.

FREQUENCY GUIDE FOR STATION ADJUSTMENT

Frequency (Kc/s.)	Wavelength (Metres)	Press Button	Approx. Turns	
			OSC.	AER.
620	485	1	18	20½
650	462	1	14½	17½
700	428	1	12	13½
750	400	1	10	11
800	375	1	8	8½
850	353	1	6½	5½
900	333	1	3½	2½
930	325	1	1	Nil
810	370	2	17	21½
850	353	2	14½	18
900	333	2	12½	15
950	316	2	11	13
1000	300	2	9½	11
1050	286	2	8	9
1100	273	2	6½	7
1150	261	2	5	5½
1200	250	2	2½	3½
1220	245	2	1½	1
1000	300	3	18	20½
1050	286	3	15½	17½
1100	273	3	13½	15½
1150	261	3	12½	13½
1200	250	3	11	12
1250	240	3	10½	10½
1300	231	3	9	9
1350	222	3	7½	7
1400	214	3	6½	5½
1450	207	3	4½	4
1500	200	3	1	2

SERVICING AND REPLACEMENTS

When in doubt on any point concerning your Ekco Car Radio you should consult an Ekco Car Radio Dealer. In addition to the normal advisory, replacement and repair service which these provide, EKCO SERVICE DEPOTS are situated at Southend-on-Sea, Manchester, Birmingham and Glasgow.

Guarantee

All Ekco Car Radio Receivers are supplied subject to the following terms and conditions of guarantee :—

All Ekco Car Radio Receivers are guaranteed for six calendar months from the date of delivery to the original user, subject to the conditions as set out hereunder. Should any component parts fail during this period due to faulty workmanship or material, they will be repaired or replaced by us free of charge if returned carriage paid to the nearest Ekco Service Depot. In case of dispute, the Company's decision is final. Labour involved in removing and replacing parts supplied or repaired free under this guarantee will be chargeable. Your Ekco Car Radio Service Station will observe these conditions and has a similar claim to charges for labour and recovery of cost of packing and despatch when components must be returned to the Company.

- (1) The Purchaser must complete and forward to us within seven days of delivery the Guarantee Registration Card attached. All particulars requested on the card must be given. The Company will issue a Registration Certificate to the Purchaser.
- (2) The Guarantee does not cover (a) valves, lamps, fuses supplied with the receiver. (b) damage resulting from incorrect installation or use other than that described in the instruction card, or (c) consequential damage.
- (3) The Guarantee will be rendered invalid if the receiver is misused or transformed, modified or altered without the written consent of E. K. Cole Ltd. (The replacement of any valve, component or accessory by one of a type not specified shall be deemed to be a modification of the product.)
- (4) The Guarantee will be rendered invalid if the serial number be defaced or altered. All communications in regard to Guarantee or Service must quote the serial number and date of purchase.
- (5) Any Ekco Car Radio or part thereof returned to the Company under the guarantee must be forwarded carriage paid to the destination and in no circumstances whatsoever shall any responsibility for damage during transit be accepted by E. K. Cole Ltd.
- (6) Any Ekco Car Radio or part thereof returned for service under guarantee must be accompanied by a note stating the model and serial numbers, date of purchase, the name and address of the purchaser.
- (7) In the event of the complete receiver being returned, and found on test to be free from defect, or the fault being traced solely to one or more defective valves or other parts as mentioned in paragraph 2, all costs, plus a minimum charge of 7s. 6d. to cover the handling expenses must be paid by the sender.
- (8) If any service under this Guarantee is given by the Company at the purchaser's home the Company shall be entitled to charge for expenses and labour involved.
- (9) No dealer has any authority to vary the terms of this Guarantee.
- (10) This guarantee is given in lieu of and excludes every condition of warranty whether expressed or implied whatsoever not herein expressly set out.

VALVES. The valves used in this receiver are guaranteed by the valve manufacturer for a period of three calendar months from the date of purchase. This guarantee is only given in respect of faulty workmanship and material and does not cover misuse or consequential damage. Claims under this guarantee will only be considered if the valve is returned to the valve manufacturer. Any Ekco Car Radio Service Station will undertake the return and replacement of valves under guarantee.

SERVICE INSTRUCTIONS

Should you have occasion to call for any assistance, you will find that in every town there is at least one Ekco Car Radio Service Station capable of giving Service within the terms of the guarantee.

The Certificate of Registration, which is sent out on receipt of the Guarantee Registration Card, must be produced when such service is requested.

As an alternative, you can write to any Ekco Service Depot and the Manager will advise you. When writing, give full details of your problem and the model and serial numbers of your receiver. Do not, however, send your receiver until you are requested, as it may be found that local attention will overcome your problem.

RETURN FOR SERVICE. If the set should cease to operate satisfactorily and after consultation with the local service station you are advised to return it for repair, it should be very carefully packed, as no responsibility can be accepted for damage sustained in transit.

DESPATCH. Send the carton or case carriage paid, addressed E. K. Cole Ltd., at the nearest of the following addresses, posting at the same time a letter advising the selected depot of its despatch. Enclose a note with the apparatus giving your name and address and type and registration number of your car.

Ekco Service Departments are situated at:—

Somerton Works, Southend-on-Sea, Essex.	Phone <i>Southend 2296</i>
11, Brook Street, Birmingham, 3.	„ <i>Central 2505</i>
55, Whitworth Street, Manchester, 1.	„ <i>Central 6711</i>
26, India Street, Glasgow, C.2.	„ <i>Central 2012</i>



EKCO CAR RADIO

MODEL CRI17

GUARANTEE REGISTRATION CARD

SERIAL No.
(See Diagram 1 for location of this number on receiver)

USE BLOCK LETTERS.

PURCHASER'S NAME

ADDRESS

SUPPLIER'S NAME.....

INSTALLER'S ADDRESS

DATE OF PURCHASE

TYPE OF CAR..... H.P. REGISTRATION NO.....

The above model functions to my satisfaction. Please register your guarantee on this receiver in my name and send me acknowledgment.

DATE..... PURCHASER'S SIGNATURE.....

(It is essential that this card be completely filled in, otherwise guarantee cannot be registered).