

EDDYSTONE**Model 740**

General Description : Eight-valve (including rectifier), four-waveband communications receiver with noise limiter. Released 1950.

Power Supplies : A.C. mains, 110 and 200-250 volts. Consumption 45 watts. A socket is provided for vibrator power unit.

Intermediate Frequency : 450 kc/s. Oscillator frequency is higher than signal frequency on all ranges.

Valves : (V1) EAF42; (V2) ECH42; (V3) EAF42; (V4) EAF42; (V5) EL42; (V6) EAF42 (B.F.O.); (V7) EB41 (noise limiter); (V8) EZ40.

Notes : Input impedance (aerial terminals) 400 ohms nominal. The standby switch desensitises the receiver without breaking the H.T. supply. Undistorted audio output 1.2 watts, maximum output 3 watts. A separate loudspeaker is required, impedance 2.5 ohms. The R.F. gain control affects the R.F. and I.F. amplification. Switching on the B.F.O. automatically cuts out A.V.C. action.

Alignment Procedure : Alignment frequencies are given on page 196. The location of trimmers and cores is the same as for Model 670.

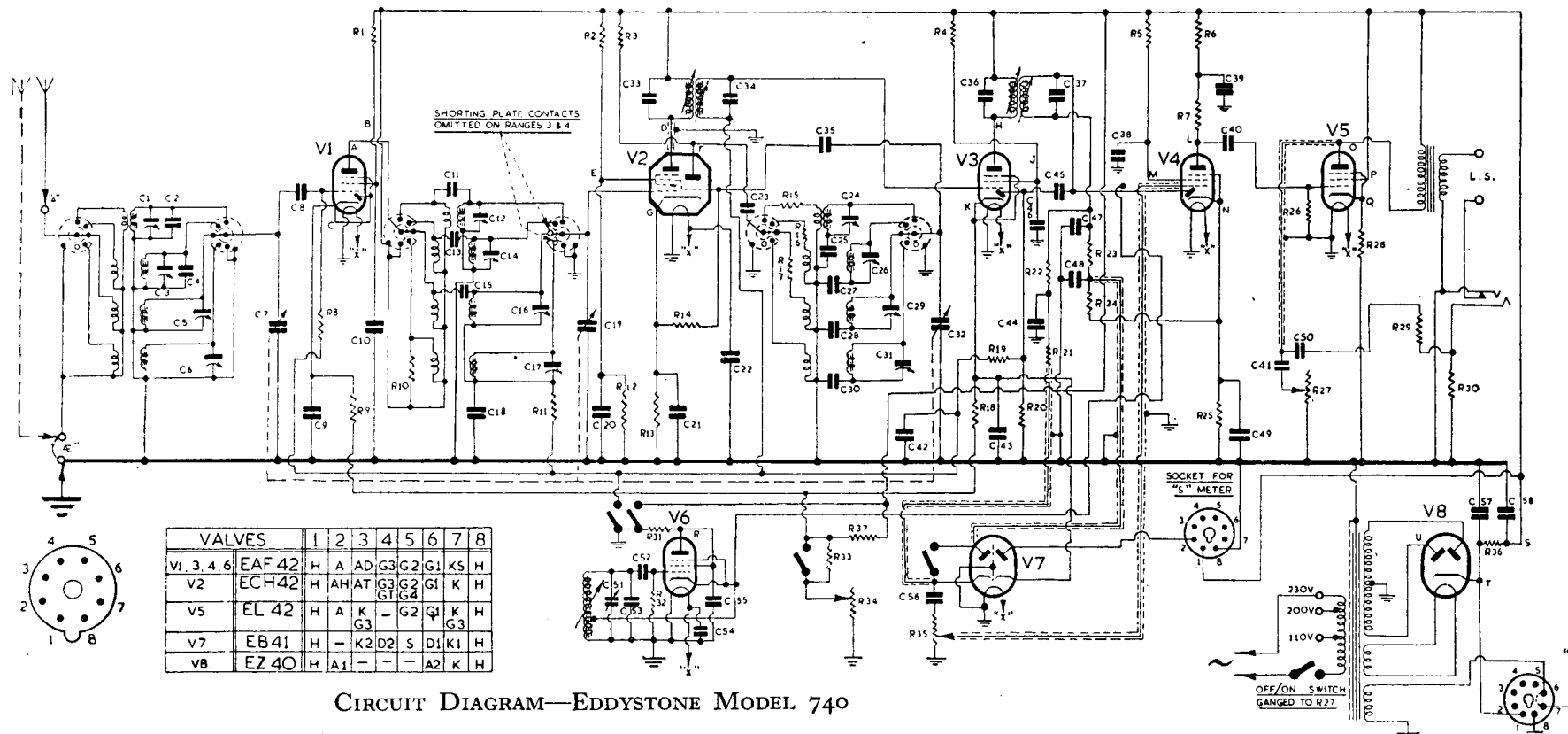
Voltage Values : Voltages given below are between the points indicated and chassis. Receiver at 28 Mc/s., on Range 1. Aerial shorted out; tone, R.F. and A.F. gain controls fully clockwise. The voltage indicated depends on the internal resistance of the meter employed. A tolerance of plus or minus 5 per cent should be allowed. Total H.T. current 57 mA.

Note : When checking Point R, "A.V.C." Switch must be set to "B.F.O."

<i>Circuit Reference</i>	<i>1000 ohms/volt Testmeter</i>	<i>333 ohms/volt Testmeter</i>	<i>Circuit Reference</i>	<i>1000 ohms/volt Testmeter</i>	<i>333 ohms/volt Testmeter</i>
A	240.0 v.	240.0 v.	L	35.0 v.	32.0 v.
B	83.0 v.	70.0 v.	M	18.0 v.	15.0 v.
C	2.0 v.	2.0 v.	N	0.9 v.	0.7 v.
D	240.0 v.	238.0 v.	O	235.0 v.	233.0 v.
E	92.0 v.	84.0 v.	P	240.0 v.	240.0 v.
F	93.0 v.	77.0 v.	Q	10.5 v.	10.5 v.
G	2.0 v.	2.0 v.	R	80.0 v.	75.0 v.
H	240.0 v.	238.0 v.	S	240.0 v.	240.0 v.
J	87.0 v.	72.0 v.	T	260.0 v.	260.0 v.
K	2.5 v.	2.4 v.	U	250.0 v. (A.C.)	250.0 v. (A.C.)

EDDYSTONE "ALL WORLD SIX" Model 710/B

General Description : Model 710/B is a battery-operated receiver intended principally for the reception of short- and medium-wave broadcast stations. The circuit is generally similar to that of the 740 except that the B.F.O. and noise limiter valves are omitted while the output stage consists of two EL42 valves in a push-pull circuit, the two grids being fed from a centre tapped audio transformer, parallel fed from the anode of V4.

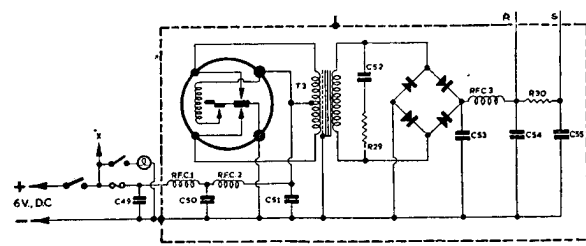


VALVES		1	2	3	4	5	6	7	8
V1	3, 4, 6 EAF 42	H	A	AD	G3	G2	G1	KS	H
V2	ECH 42	H	AH	AT	G3	G2	G1	K	H
V5	EL 42	H	A	K	-	G2	G1	K	H
V7	EB 41	H	-	K2	D2	S	D1	K1	H
V8	EZ 40	H	A1	-	-	A2	K	H	

CIRCUIT DIAGRAM—EDDYSTONE MODEL 740

- Capacitors.**
- 3/23 pF. (air) C1, C3, C5, C6, C12, C14, C16, C17, C24, C26, C29, C31
 - 3 pF. C15
 - 6 pF. C4, C13
 - 10 pF. C2
 - 20 pF. C11, C45
 - 100 pF. C8, C23, C33, C34, C35, C36, C37, C47, C48, C52, C53
 - 3625 pF. C25
 - C7, C19, C32 B.F.O. pitch
 - Three-gang capacitor 11.5-366 pF. per section. C51.

- Resistors.**
- 22 R15
 - 47 R16
 - 220 R13
 - 330 R9
 - 400 R28, R36
 - 470 R18
 - 560 R17
 - 1.4k R25
 - 2.2k R30
 - 3k R10
 - 22k R2, R12
 - Potentiometers R35 0.5M.
 - 25k R6
 - 33k R3, R14, R29
 - 47k R31, R32
 - 51k R33
 - 0.1M R1, R4, R23, R24, R37
 - 0.27M R7
 - 0.47M R8, R11, R19, R20, R26
 - 1M R22
 - 2M R5, R21
 - R27 50k; R34 10k;



VIBRATOR POWER UNIT—MODEL 710/B

EDDYSTONE RECEIVERS

INTRODUCTORY NOTES

Manufacturers : Messrs. Stratton and Co. Ltd., Eddystone Works, Alvechurch Road, West Heath, Birmingham 31.

The front panel and the coil-box of all models are stout diecastings, while separate chassis are used for the power unit, I.F. section and output stage.

In each model, the cabinet is easily removable by withdrawing four large screws at the rear. Most parts of the receiver are then readily accessible.

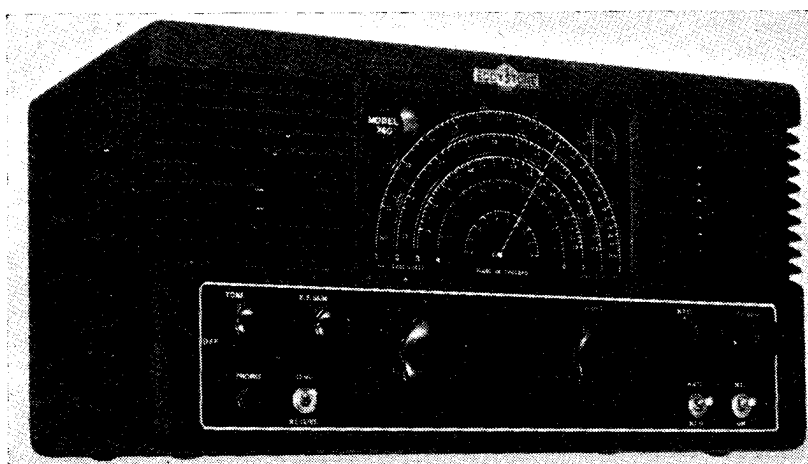
All coils (R.F. and I.F.) are permeability tuned, trimmers also being provided in the R.F. and oscillator sections. Alignment is carried out following the normal procedure, variations being indicated where necessary. When changing a valve, it is usually only necessary to re-adjust the appropriate trimmer capacitors to correct any differences in stray capacitance, and there is then no need to remove the lid of the coil-box. For full alignment, however, this lid must be taken off. Always remember to adjust the trimmers at the high-frequency end of a range and the cores at the low-frequency end. The correct alignment points are given in the table below. Where variable selectivity is fitted (Models 750, 680), alignment should be carried out with the control set at *maximum* selectivity.

Models 640, 740 and 750 are adapted for operation from a 6-volt accumulator and auxiliary H.T. supply. The octal plug which completes the L.T. connections must be inserted in the socket at the rear. This plug and its internal connections should be examined if any failure of or variation in the heater supply occurs.

During manufacture, all receivers are subjected to an ageing process and are then calibrated to an accuracy of plus or minus 0.5 per cent.

The transformers fitted to mains models are for 40-60 c/s. operation and are not suitable for 25 c/s. supplies.

The glass and dial can be cleaned by using a thin artist's brush, long enough



GENERAL APPEARANCE OF POST-WAR EDDYSTONE RECEIVERS
(MODEL 740)

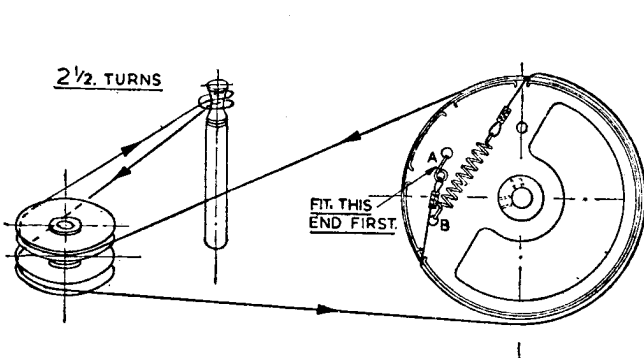
to reach all parts of the glass. The dial lights are standard in all receivers, bulbs with miniature bayonet caps, rated at 6.3 volts, 0.3 amp., being used. To change a lamp, it is only necessary to press the holder, which is sprung into place, and pull out.

A standard wiring code is used as follows :

A.C. mains	Grey	Heaters	Yellow
H.T.	Red	Negative to chassis	Brown
Anodes	Light blue	Chassis potential	Black
Grids	Green	Other leads	White

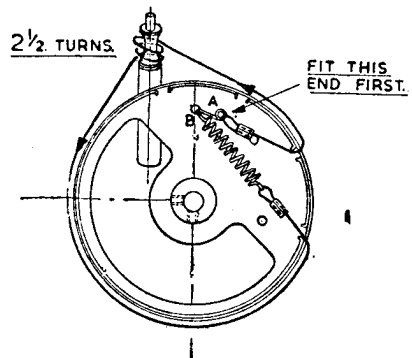
ALIGNMENT FREQUENCIES

Model	Range 1		Range 2		Range 3		Range 4		Range 5	
	High (Mc/s.)	Low (Mc/s.)	High (Mc/s.)	Low (Mc/s.)	High (Mc/s.)	Low (Mc/s.)	High (kc/s.)	Low (kc/s.)	High (kc/s.)	Low (kc/s.)
556, 504	30	14	13	6.5	6.5	3	2800	1400	1300	600
659, 670	28	13	12	6	2.6	1.3	1200	600	—	—
640	30	13	12	5	4	2	—	—	—	—
710, 740	28	12	9	4	3.2	1.5	1200	550	—	—
750	30	13	11	4.7	4.2	2	1350	550	—	—
680	28	14	13	6	5.8	2.5	2500	1200	1100	500



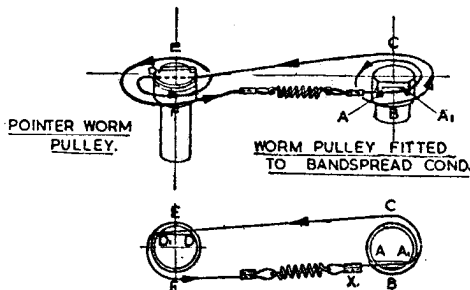
BANDSET.

TURN BANDSET CONDENSER TO MAXIMUM CAPACITY; THE DRIVE DRUM FITTED TO THE CONDENSER SPINDLE SHOULD THEN BE ORIENTATED AS SHOWN. USE CORD. D.1069. COMMENCE AT 'A.' & FINISH AT 'B.'



BANDSPREAD.

WITH THE BANDSPREAD CONDENSER SET AT MAX. CAPACITY; THE DRIVE DRUM IS FITTED IN THE POSITION SHOWN. USE CORD. D.1070. COMMENCE AT 'A.' & FINISH AT 'B.'



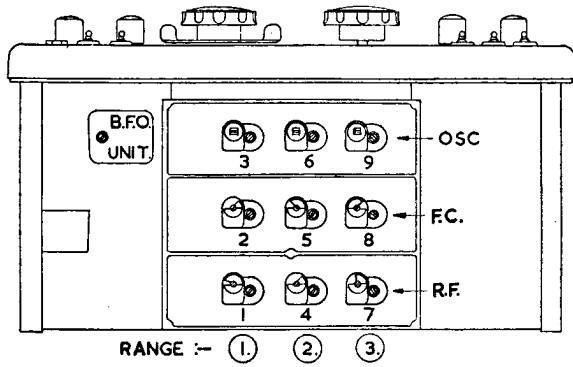
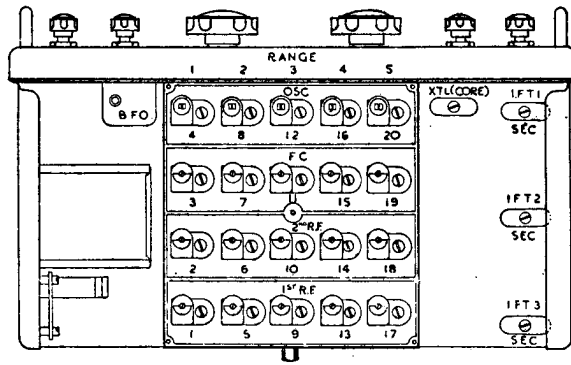
BANDSPREAD POINTER DRIVE.

SET BANDSPREAD CONDENSER AT MAX. CAPACITY. WITH WORM PULLEYS IN POSITIONS SHOWN. FIT CORD D.1071. IN SLOT. A.A. SO THAT THE CORD CLIP 'X' JUST CLEARS THE PULLEY. NOW COMPLETE ASSEMBLY BY FOLLOWING. A1.B.C.D.E.F.

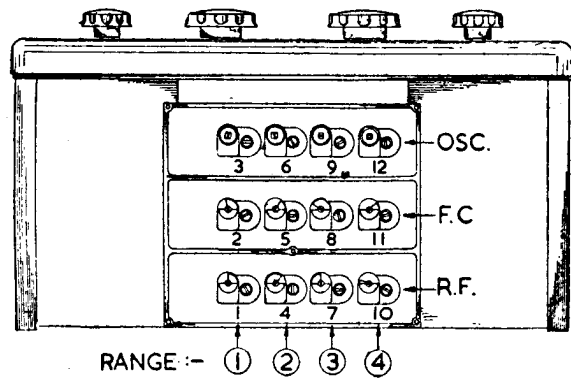
CORD DRIVE REPLACEMENT—EDDYSTONE MODEL 640

Turn receiver panel downwards top towards you ; then with cover removed and looking down on the receiver, the cord drives would appear similar to the inverted rear views shown. To fit cords, remove dial bulbs and reflector plate and proceed as indicated in the diagrams.

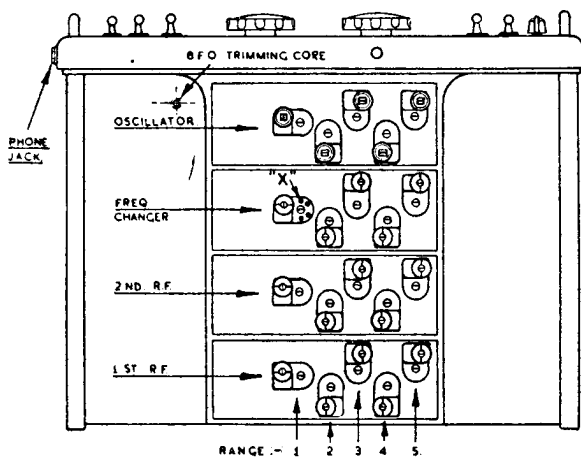
CORE AND TRIMMER LAY-OUT—
EDDYSTONE MODELS 504, 556



CORE AND TRIMMER LAY-OUT—
EDDYSTONE MODEL 640



CORE AND TRIMMER LAY-OUT—
EDDYSTONE MODELS 659, 670, 740, 710



CORE AND TRIMMER LAY-OUT—
EDDYSTONE MODEL 680