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THE EDDYSTONE MODEL "840"

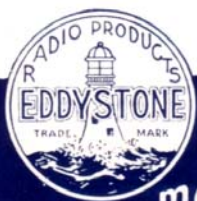
AC/DC COMMUNICATION RECEIVER

The Eddystone "840" communication receiver is an AC/DC model, having a continuous coverage from 30 Mc/s. (10 metres) to 480 kc/s. (620 metres), and is recommended for professional or amateur use. The receiver is a sound engineering product, designed to give the highest efficiency. The signal-to-noise ratio, sensitivity, selectivity and other technical characteristics are excellent and a good all-round performance is obtainable.

The tuning mechanism, which is gear-driven and flywheel loaded, gives a silky yet wholly positive control. A reasonable degree of bandspread is provided by the auxiliary scale, visible in the top right-hand corner of the main dial. In effect, it opens out each range to a length equivalent to sixty inches and is invaluable for logging purposes.

Materials of the highest quality are used throughout, construction is extremely robust, and the workmanship is unexcelled.

The "840" operates equally well from AC or DC mains, a selector being provided for inputs of 100/110 and 220/250 volts. The insulation between the metal cabinet and the interior has received special attention and is more than adequate.



Manufactured
by

STRATTON & CO LTD
EDDYSTONE WORKS · BIRMINGHAM · ENGLAND
CABLES: STRATNOID BIRMINGHAM

(MODEL 840 1953)

SPECIFICATION OF THE **EDDYSTONE**

CIRCUIT.

The receiver is a seven valve superheterodyne as follows :

- V1 UAF42 RF Amplifier.
- V2 UCH42 Frequency Changer.
- V3 UAF42 IF Amplifier and AGC.
- V4 UAF42 AF Amplifier and Detector.
- V5 UL41 Output
- V6 UAF42 Beat Frequency Oscillator.
- V7 UY41 Rectifier.

All valves have B8A bases.

INPUT IMPEDANCE.

The average input impedance is 400 ohms, but good results are obtainable with any type of aerial. Provision is made for twin feeders or a single wire aerial.

AUTOMATIC GAIN CONTROL.

The delayed AGC system maintains the output within 25 db for a change in input of 80 db above 3 microvolts. AGC is switched off when the BFO is brought into use.

TUNING MECHANISM.

The tuning is controlled by a gear-driven, flywheel-loaded mechanism, having a reduction ratio of approximately 140 to 1. It is smooth, positive and free from backlash. In the top right-hand opening is an auxiliary band-spread scale which gives an equivalent of 60 inches per range and permits accurate re-setting.

TUNING RANGE.

- Range 1 30.6 Mc/s. to 10.5 Mc/s.
- Range 2 10.6 Mc/s. to 3.7 Mc/s.
- Range 3 3.8 Mc/s. to 1.4 Mc/s.
- Range 4 205 Metres to 620 Metres.

The first three ranges are directly calibrated in frequency and the fourth in wavelength, to an accuracy of better than 0.5%. Range 4 includes the International Distress frequency.

INTERMEDIATE FREQUENCY STAGES.

The IF transformers, working on 450 kc/s., are permeability tuned and robustly constructed. The transformers maintain their initial adjustment over a long period.

BEAT FREQUENCY OSCILLATOR.

The BFO is a separate unit with integrally mounted valveholder, thus ensuring adequate screening and a high degree of stability. The pitch control gives a variation of plus or minus 3 kc/s.

LOUD SPEAKER.

A high-flux loudspeaker is fitted internally, the connections being brought out to the rear to permit an easy changeover to an external speaker when desired. The latter should have an impedance of 2.5 ohms, the Eddystone Cat. No. 688 being recommended. On the front panel is a jack to take high resistance telephones, the insertion of which automatically mute the speaker.

List Price (in U.K.) £45

Comprehensive instructions and a 12 mor



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NOISE LIMITER.

The Noise Limiter uses a small metal rectifier and is effective against ignition and similar noise. It can be brought into circuit at will by the switch on the front panel.

TECHNICAL PERFORMANCE.

Sensitivity is better than 10 microvolts for a 15 db signal-to-noise ratio.

Selectivity 30 db down 10 kc/s. off resonance. Image ratio better than 15 db at 30 Mc/s. and correspondingly higher at lower frequencies.

Undistorted audio output .75 watts. Maximum output exceeds 1.2 watts.

ILLUMINATION.

The scale is illuminated by a 12 volt Festoon (tubular) lamp.

GENERAL CONSTRUCTION.

Aluminium diecastings are used for the front panel and tuner unit chassis. These provide an extremely rigid foundation for the whole receiver. The IF output chassis is heavy gauge brass, securely attached to the main castings. The cover is of rust-proofed steel. The most reliable of tropically finished component parts are used.

FINISH.

The exterior is finished a fine ripple black. The controls are mounted on an appropriately marked finger plate.

CONTROLS.

The controls are :

Tuning	BFO Switch and AGC
Band Selector	Noise Limiter On/Off
RF Gain	Standby Switch
AF Gain	Mains On/Off Switch
BFO Pitch	combined with Tone Control

VENTILATION.

Ventilation has been carefully arranged to avoid undue temperature rise in the cabinet.

ACCESSIBILITY.

The receiver chassis can be taken out of the cabinet by the removal of four fixing screws. The chassis is fitted with protecting rails so that, when removed from the cabinet, it may be inverted without damage to valves or components.

WEIGHT AND DIMENSIONS.

The weight is 30 lbs. The dimensions are : Overall width 16 $\frac{3}{4}$ -in. ; Depth, 10 $\frac{1}{2}$ -in. ; Height, 8 $\frac{3}{4}$ -in.

POWER SUPPLY.

Inputs of 100/115 volts and 220/250 volts are catered for, and current consumption is approximately 0.275 amperes. The receiver operates equally well from DC mains or AC (25/60 cycles) mains.

: 0 : 0 (Exempt from Purchase Tax)

Two Guarantees accompany each receiver.



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EDDYSTONE

ACCESSORIES FOR USE WITH THE "840" RECEIVER



DIECAST LOUDSPEAKER

This efficient speaker consists of a 5" permanent magnet unit mounted in a diecast housing 7" in diameter.

A special acoustic baffle is fitted and the tone is exceptionally good. Impedance 2.5 ohms. Finished ripple black with chromium plated feet. Supplied complete with lead.

Cat. No. 688.

£3 : 3 : 3

MAINS FILTER UNIT

Mains-borne interference can be considerably reduced, if not eliminated, by fitting a suitable filter unit. The Eddystone Mains Filter has been designed specifically for the purpose and will be found most efficient. It takes the form of a small metal box, finished ripple brown, and is supplied with mains plug and socket. The unit takes but a few minutes to fit between the mains supply point and the receiver. Rated to carry 0.5 amp. maximum.

Cat. No. 732.

£2 : 15 : 0

DOUBLET AERIAL

The Eddystone Doublet Aerial gives improved results compared with a single wire type of aerial and is particularly efficient on short waves. The two arms forming the aerial proper can be strung in any convenient position (as high as possible) and the flexible insulated twin-feeder brought in through any convenient aperture without the necessity of additional insulation. Pick-up of electrical interference is minimised with a consequent reduction in background noise. Supplied complete and ready for immediate installation.

Cat. No. 731 (50 ft. feeder cable)

£2 : 17 : 9

Cat. No. 731/1 (100 ft. feeder cable)

£3 : 3 : 3

RECEIVER MOUNTING BLOCKS

These useful blocks lift up the front of the receiver and give a more convenient operating position. They are held in place by the weight of the receiver or can be bolted to underside of cabinet. 6¼" long and 2½" deep at front. In die-cast aluminium, finished polychromatic grey.

Cat. No. 812

11/6 per pair

