



## THE EDDYSTONE MODEL "740"

A BRITISH MADE COMMUNICATIONS RECEIVER OF FIRST-CLASS CONSTRUCTION AT A MODERATE PRICE

The Eddystone "740" receiver is a general purpose model suitable for professional or amateur communications purposes. It employs eight valves (including rectifier) in a carefully designed superheterodyne circuit, has an excellent signal-to-noise ratio and is capable of a good all round performance over a wide range of frequencies. The tuning mechanism is gear-driven and a reasonable degree of bandspread is provided by the auxiliary scale which, in effect, opens out each range to a length of 60 inches.

The construction of the "740" is very robust and the high quality materials used throughout ensure reliability under any climatic conditions.

The built-in power supply operates from A.C. mains (110 and 220/250 volts, 40/60 cycles) but provision is also made for 6 volt battery operation, in conjunction with an external Vibrator Unit (Cat. No. 687).



*Manufactured by*

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

MODEL 740 (1950-54)

# SPECIFICATION OF THE EDDYSTONE

## CIRCUIT.

The receiver is an eight valve superheterodyne as follows :

- V1 EAF42 RF Amplifier.
- V2 ECH42 Frequency Changer.
- V3 EAF42 IF Amplifier and AGC.
- V4 EAF42 AF Amplifier and Detector.
- V5 EL42 Output.
- V6 EAF42 Beat Frequency Oscillator.
- V7 EB41 Noise Limiter and "S" Meter Limiter.
- V8 EZ40 Full Wave Rectifier.

All the 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. 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 and positive in operation and free from backlash. In the top right-hand opening is the auxiliary band-spread scale which permits accurate re-setting to any given station.

## 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 wave.

## INTERMEDIATE FREQUENCY STAGES.

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

## BEAT FREQUENCY OSCILLATOR.

A separate BFO unit with integrally mounted valveholder ensures adequate screening and a high degree of stability. The pitch control gives a variation of plus or minus 3000 cycles.

## NOISE LIMITER.

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

## OUTPUT IMPEDANCE.

At the rear of the receiver are terminals for the connection of a speaker of 2.5 ohms impedance (the Eddystone Cat. No. 688 is recommended). On the front panel is a jack to take high resistance telephones, the insertion of which automatically mutes the speaker.

**List Price (in U.K.) £38 : 15 :**

Comprehensive instructions and a 12 m



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# "740" COMMUNICATIONS RECEIVER

## 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 1.2 watts. Maximum available output 3 watts.

## "S" METER.

A socket is fitted at the rear of the receiver, into which an external "S" Meter Unit — Cat. No. 669 — can be connected.

## ILLUMINATION.

The scale is illuminated by 6 volt 1.8 watt bayonet fitting lamps.

## 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 stout gauge brass, heavily nickel-plated and securely attached to the main castings. The cover is of steel, fitted with lift-up lid, and thoroughly rust-proofed. 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-in. ; Height, 8 $\frac{1}{2}$ -in.

## POWER SUPPLY.

Inputs of 110 volts and 200/240 volts, 40/60 cycles, are catered for, the power consumption from mains being approximately 45 watts.

A socket is provided at the rear to enable the receiver to work from a 6 volt battery in conjunction with an external Vibrator Unit — Cat. No. 687.

**0 (Exempt from Purchase Tax)**

Months Guarantee accompany each receiver.



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## ACCESSORIES FOR USE WITH THE "740" 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.**

**Price £3 : 3 : 0**

### SIGNAL STRENGTH METER

This "S" meter is designed for use with the "740" Receiver. It is contained in a neat diecast housing, finished a fine ripple black. The necessary resistors, including the zero adjuster, are fitted inside. The meter, which has a 200 microampere full scale deflection, is calibrated in "S" units and decibels above S9, on the basis of a 4db increase in carrier strength for each "S" point. The leads terminate in an octal plug, which, in the case of the "740", permits direct connection to the socket at the rear of the Receiver.



**Cat. No. 669.**

**Price £5 : 15 : 6**

### VIBRATOR POWER UNIT

This unit permits the "740" Receiver to be operated from a 6 volt accumulator. It comprises a transformer, non-synchronous vibrator, 6X5G rectifier, on/off switch, and the necessary filters which effectively prevent RF interference over the whole range covered by the receiver. Smoothing is not included, since the components in the receiver perform this function. A heavy cable is provided for connecting to the battery and a lead terminating in an octal plug for attachment to the receiver. The unit is totally enclosed in a metal cabinet finished ripple black to match the receiver.

**Cat. No. 687**

**Price £11 : 17 : 6**



### 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. 6 $\frac{1}{4}$ " long and 2 $\frac{1}{2}$ " deep at front. In die-cast aluminium, finished ripple black.

**Cat. No. 774**

**Price 11 : 6d. per pair**

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