

Eddystone Radio Limited

A GEC-Marconi Electronics Company

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Cables: Eddystone Birmingham Telex: 33708



Transistorized Communication Receiver

EC10 Mk.II

General Description The EC10 Mk.II is a compact, solid-state communication receiver based on the proven design of the well-established EC10 receiver which is widely used by professional and amateur operators in all parts of the world.

Continuous cover from 550kHz to 30MHz is provided by a single-conversion circuit employing a total of ten transistors and six semiconductor diodes. Special features include a fine tuning control, integral carrier level meter, audio filter for CW reception and provision for desensitizing when used in conjunction with an associated transmitter.

A built-in loudspeaker is fitted and a telephone socket is available at the rear, this being arranged to mute the speaker when telephones are in use. A separate low-level output is provided for use with a recorder.

The receiver is normally supplied with a self-contained battery pack, but interchangeable units are available to suit standard AC mains or external 12/24V DC supplies with +ve earthing. Power Unit Type 924 is employed for AC operation and Voltage Converter Type 945 for 12/24V DC.

Solid-state design

Compact size

Modern styling

Integral speaker

Fine tuning control

Carrier level meter



Performance Summary

Input impedance

Aerial: Ranges 1-4: 75Ω
5: 400Ω

Frequency coverage

Range 1: 18.0-30.0MHz

Range 2: 8.5-18.0MHz

Range 3: 3.5-8.5MHz

Range 4: 1.5-3.5MHz

Range 5: 550-1500kHz

Note: Special Marine versions of the EC10 are available with Range 5 coverage modified to 300-550kHz and with additional crystal-controlled reception channel of 2182kHz (HF Distress and Calling Channel). Data Sheet available on request.

Stability

1 part in 10⁴/°C.

Calibration accuracy

1% on all ranges.

Reception modes

CW-MCW-AM (also suitable for SSB).
Audio filter and tunable BFO are provided for CW reception.

Sensitivity

5μV for 15dB S/N above 1.5MHz.
15μV for 15dB S/N below 1.5MHz.

Image rejection

20dB at 18MHz, 50dB at 2MHz.

IF rejection

85dB above 1.5MHz, 65dB below 1.5MHz.

Intermediate frequency

465kHz.

Selectivity

5kHz B/W at -6dB, 25kHz at -40dB.

AGC characteristic

Less than 12dB change in output for 80dB increase in input level.

Audio output

Integral speaker (3Ω): 1W max. 800mW at 10% distortion.

Headset: Low/medium-Z.

Low-level record o/p: 5kΩ nominal.

Response: Within 6dB, 300Hz-8kHz.

CW Filter: 6dB B/W of 180Hz.

Power supplies

Integral 9V battery pack (6 × U2 or HP2 batteries). Power Unit Type 924 can be fitted in place of battery pack for operation from AC supplies of 100/125V or 200/250V (40-60Hz). External DC supplies of 12V or 24V can also be employed by fitting Voltage Converter Type 945 (+ve earth only).

Consumption

77mA at 50mW o/p (9V battery pack).

Controls

Main Tuning, Fine Tuning, Range Switch, RF Gain/Supply Switch, AF Gain, BFO Pitch, BFO On/Off, AGC, AF Filter, Dial Light Switch, Standby Switch.

Overall dimensions

Width: 12.5in (31.7cm)

Height: 6.375in (16.2cm)

Depth: 8in (20.3cm)

Weight: 14lb (6.3kg)

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Transistorized Communication Receivers

EC10 Mk. II
EC10A Series

General Description This range of compact, fully transistorized communication receivers has been developed from the well-established EC10 design which is now widely used by professional organizations and amateur operators in all parts of the world.

The EC10 Mk. II is a restyled replacement for the earlier Model EC10, incorporating a number of additional features. These include an integral carrier level meter, fine tuning control and desensitizing facilities. Unbroken coverage is provided from 550kHz to 30MHz, and a low-level output is available for recording purposes.

The EC10A Series comprises four variants of the basic EC10 which have been tailored for maritime applications. These receivers cover the band 300–550kHz in lieu of 550–1500kHz and are available with an integral crystal controlled converter providing spot frequency working on 2182kHz. The following versions can be supplied:

- EC10A:** Standard Marine receiver covering 300–550kHz and 1.5–30MHz.
- EC10A/2:** As EC10A but with 2182kHz facility, 600Ω line O/P and desensitizing.
- EC10A/2/RM:** Rack-mounting version of EC10A/2. Equipped with two panel speakers, one for receiver and one for ship intercom system.
(Internal speaker retained to permit direct conversion to EC10A/2)
- EC10A/2/RM/S:** Identical to EC10A/2/RM but less internal and intercom speakers.

Solid-state design

Compact size

Wide application

Integral speaker

Fine tuning control*

Carrier level meter*

*EC10 Mk. II

