

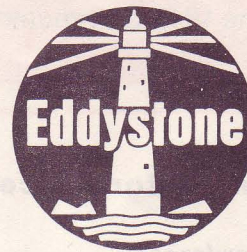
## Eddystone Radio Limited

Member of Marconi Communications Systems Limited

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Cables: Eddystone Birmingham Telex: 337081



# VHF Communication Receiver

## 990R

**General Description** The Eddystone Model 990R is a fully transistorized receiver for CW, AM and FM working in the VHF range 27-240MHz. It can be supplied with crystal filter to suit 12.5kHz, 25kHz or 50kHz channel spacing, the latter being fitted as standard. A wide selectivity position of 200kHz allows the receiver to be used as a monitor for wide-band FM transmissions. Local oscillator arrangements permit manual tuning, crystal controlled working (up to eight switched channels) or operation with external frequency control.

Separate outputs are available for wide-band and narrow-band signal analysis when the 990R is operated with the matching EP961 Panoramic Display Unit. Both units are available in bench or rack-mounting form, and can be supplied with anti-vibration mounts when required.

Designed for fixed or mobile point-to-point services or for broadcast monitoring purposes, this receiver is finding increasing use in such other applications as the meteorological service, radio astronomy, aerial investigation, civil aviation and in radio laboratories.

**Gap-free coverage  
27MHz-240MHz**

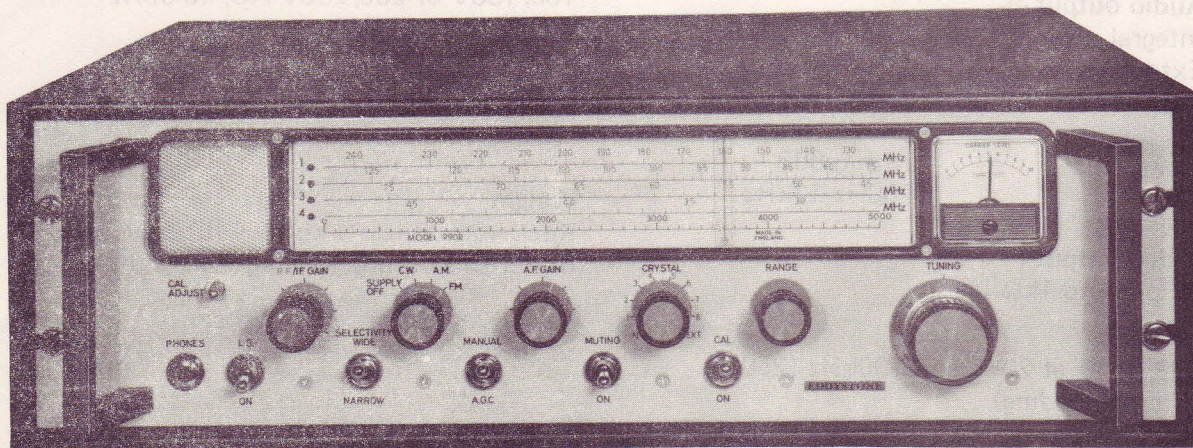
**Exceptional stability  
and sensitivity**

**Crystal calibrator**

**Output for panoramic  
display**

**Fixed or mobile  
operation**

**All solid state**





## Typical Performance

### Input impedance

Aerial,  $75\Omega$   
External Osc, low

### Frequency coverage

27MHz-240MHz in four ranges

### Stability

1 part in  $10^5/^\circ\text{C}$  (free-running)  
1 part in  $10^6/^\circ\text{C}$  (crystal controlled)

### Sensitivity

$5\mu\text{V}$  for 10dB S/N (AM mode, 30kHz B/W)

### Noise factor

Of the order 10dB

### Spurious responses

50dB down. Image rejection 45dB above  
200MHz

### Intermediate frequency

10.7MHz. Standard bandwidths 30kHz and  
200kHz

### Deviation

FM discriminator accepts 75kHz

### Automatic gain control

$\geq 10\text{dB}$  for input increase of 80dB above  
 $10\mu\text{V}$  at 100MHz

### Audio output

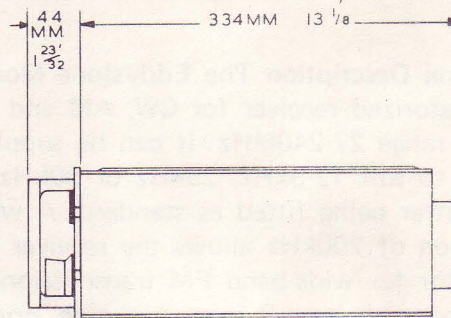
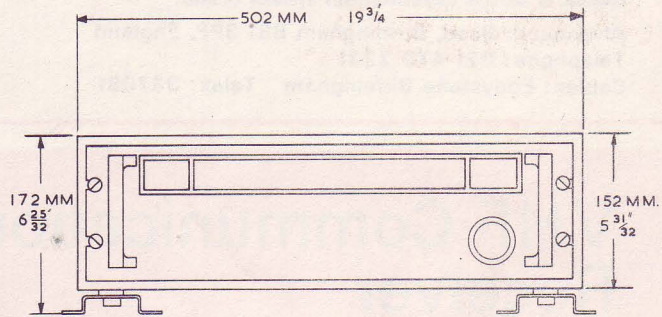
Integral speaker:	150mW max.
External speaker $3\Omega$ :	500mW max.
Line output $600\Omega$ :	10mW max.
Headset:	Low/medium-Z
Response:	Within 6dB, 200Hz-10kHz

### Video output

1V p-p into  $1k\Omega$  load

### Response

6dB down at 20Hz and 100kHz (250pF  
external loading)



*Dimensions: rack-mounting, bench-mounting and  
bench-mounting with shock-mount*

### Calibration accuracy

1% (greater accuracy with adjustable cursor  
against 10MHz markers)

### Controls

Tuning, Range, System (Osc), Mode/Supply,  
Selectivity, Calibrator, Cursor Adj, RF, IF and  
AF Gains (Independent Line Level), AGC,  
Muting, Speaker. IF Input Switch, Muting  
Gain and Meter Zero at rear

### Power supplies

100/130V or 200/260V AC, 40-60Hz  
Consumption 12VA  
12V DC  
Consumption 0.3-0.5A

### Weight

Rack-mounting 11 kg. (24 lb)  
Bench-mounting 16.2 kg. (35.5 lb)

CIVIL AVIATION REF: 10D/CA/5967

NATO STOCK NO: 5820/99/199/2527

Our equipment is designed generally to meet "British Defence Specification 133 Class L2".

As we are always seeking to improve our products, the information in this document gives only general indications of product capacity, performance and suitability, none of which shall form part of any contract. The information herein is subject to confirmation at the time of ordering.