

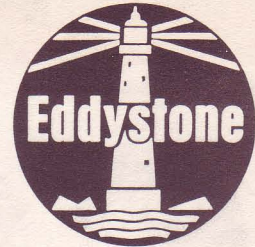
## Eddystone Radio Limited

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# 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, 75Ω  
 External Osc, low

### Frequency coverage

27MHz-240MHz in four ranges

### Stability

1 part in 10<sup>5</sup>/°C (free-running)  
 1 part in 10<sup>6</sup>/°C (crystal controlled)

### Sensitivity

5μV 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

≥10dB for input increase of 80dB above  
 10μV at 100MHz

### Audio output

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

### Video output

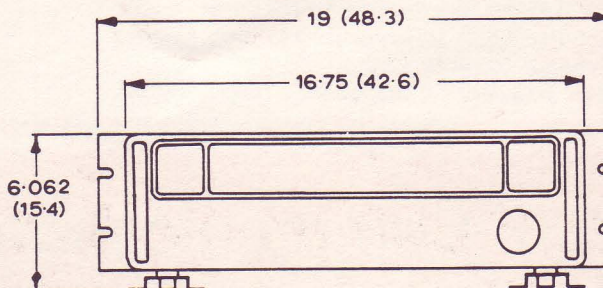
1V p-p into 1kΩ load

### Response

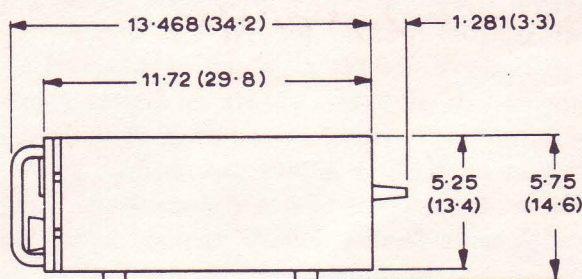
6dB down at 20Hz and 100kHz (250pF  
 external loading)

**Reference Numbers** The 990R receiver has been allocated the following reference numbers:

CIVIL AVIATION REF: 10D/CA/5967 NATO STOCK NO: 5820/99/199/2527



All dimensions in inches. Centimetres in brackets



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  
 or 12V DC  
 Consumption 0.3-0.5A

### Weight

19.5lb (8.8kg)