

'Essex'

A.M Mobile Radiotelephone

RC666/TR

Features

Compact attractive single unit

Fully solid state

Power output 7W

15W on 'mid' bands

Interconnects with GEC selective call scheme

Ten-channel capability

Incorporates safety features

Illuminated channel indicator

Simplicity of installation and operation



Description

The Type RC666/TR is a compact, dash-mounted v.h.f./a.m. mobile radiotelephone, featuring fully solid-state design techniques and robust construction.

The fascia is angled for better visibility, and safety design features include the deep impact resistant moulding and low profile rounded switches and controls. The channel in operation can be read from the illuminated window of the channel selector.

The unit weighs only 1.9kg (4lb) and measures less than 50×200×230mm (2×7 $\frac{7}{8}$ ×9in) but its power output is 6W minimum from a nominal 13.5V d.c. power supply. A higher power version is available on mid bands.

This equipment is capable of operating on any one of up to 10 preset channels within any 1MHz band of the frequency range. Standard channel spacing is 12.5kHz.

Safety features include reverse battery polarity protection circuitry and the ability of the transceiver to withstand open or short circuit antenna conditions for short periods.

Controls are integral in the fascia and include an on/off toggle switch, variable mute and volume controls and an illuminated channel selector. The press-to-talk switch is mounted on the microphone which is attached to the unit by a connector on the front panel.

The equipment is provided complete with suitable antenna and feeder, loudspeaker and cable, microphone and mounting tray and installation materials suitable for standard applications.

This radiotelephone is designed to meet British Home Office Specification No. W6770.

The RC666 is fully compatible with all GEC ancillaries such as the RC1560 integral Selcall RC1255 integral tone-operated mute and RC1270 integral vehicle identity.

Data Summary

GENERAL

Service: Single or two frequency simplex a.m.

Frequency ranges:

68–88MHz.

105–108MHz (Transmitter).

138–141MHz (Receiver).

156–174MHz.

Channel spacing: 12.5kHz standard.

Channels: Ten channels, grouped within any 1MHz portion of the frequency range.

Antenna impedance: 50 Ω , unbalanced.

Power supply: 13.5V nominal d.c. floating earth. No damage will be incurred by connexion to a supply level of up to 16V, even with incorrect polarity.

Ambient temperature: Operational –10°C to +45°C.

Size: 50×200×230mm (2×7 $\frac{7}{8}$ ×9in).

Weight: Approximately 1.9kg (4lb).

TRANSMITTER

Power output: 7W nominal (6W minimum). 15W nominal (12W minimum) on 'mid' band.

Modulation: Amplitude modulation with automatic gain control to limit peak

modulation to a preset maximum, nominally 80%.

Modulation response: 3dB down at 300Hz to 2000Hz (12.5kHz channel spacing).

Spurious emissions: Less than 2.5 μ V at a frequency separated by more than 25kHz from the carrier frequency.

Frequency stability: Between $\pm 0.0015\%$ and $\pm 0.001\%$, dependent upon frequency band of operation and minimum channel separation required.

RECEIVER

Signal-to-noise ratio: Better than 10dB for an r.f. input of 0.8 μ V p.d. (1.6 μ V e.m.f.) modulated 30% at 1000Hz.

Mute threshold: Adjustable by panel control for r.f. input levels of 0.4 μ V to 1.5 μ V p.d. (0.8 μ V e.m.f. to 3 μ V e.m.f.). Noise compensated.

Frequency stability: Between $\pm 0.0015\%$ and $\pm 0.001\%$, dependent upon frequency band of operation and minimum channel separation required.

Audio response: 3dB down at 300Hz to 2000Hz (12.5kHz channel spacing).

Audio output: At least 3W for less than 10% distortion at 1000Hz.

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.

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