



HANDSET

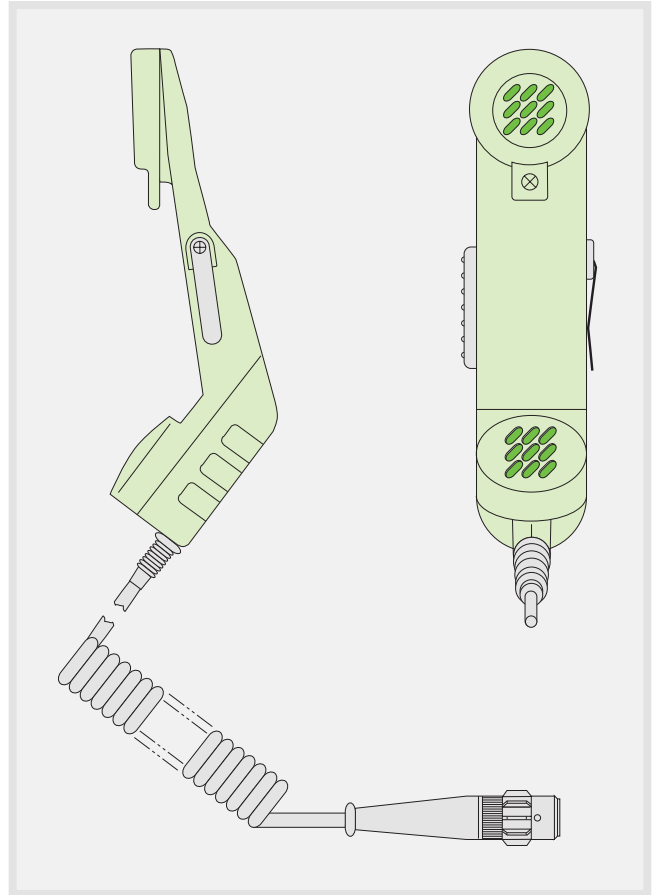
RADIO CONTROL HANDSET (RA250 Series)

- > **Flexible in configuration**
- > **Functional in hostile environments**
- > **Rugged and waterproof**
- > **Economic in equipment design**
- > **Cable and connector options**
- > **High EMC performance**

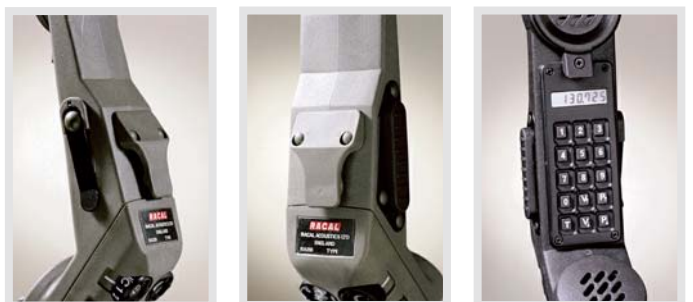
RA250 SERIES RADIO CONTROL HANDSETS



Recent developments in electronics technology, resulting in miniaturization of military and commercial radio equipment, have placed an emphasis on handset design.



Significant among recent changes is the need to provide control functions on the handset in addition to the radio front panel.



Light, tough, and ergonomically styled, RA250 can incorporate traditional PTT switches, rotary and keypad controls, displays and customer specified electronics.

PRODUCT DESCRIPTION

The advanced RA250 Series Handset is built to the highest military standards. Its modular construction is based on a rugged housing and provides the necessary flexibility to fulfil numerous requirements. The exacting specification of each module ensures that the resulting handset complies with the most stringent standards for operation, reliability and Electro-Magnetic Compatibility.

The low profile of the earpiece ensures that the RA250 Series Handset can be used in conjunction with a protective helmet. A wide range of microphone and earphone options are available.

A key feature of the design of the RA250 Series is its capability to incorporate controls and optional electronic circuitry. Controls can be rotary or keypad, with applications ranging from simple volume adjustments to control of radio functions such as channel, mode, power, encryption and frequency agility. An LED or low temperature LCD display can also be incorporated.

Uncommitted space within the base of the handset can be used to package circuitry incorporating amplifiers, keypad encoders, encryption devices or selective calling modules powered directly from the host equipment. The RA250 is available in olive drab and black with other colours such as desert sand, red and yellow available to special order.



TECHNICAL SPECIFICATIONS

ELECTRO-ACOUSTIC DATA

Earphone and microphone measurements are made as described in publication no. 9022.

Earphone

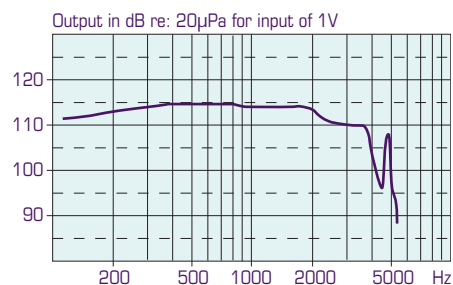
The earphones are designed to enable the handset to be used in conjunction with most military and safety helmets.

Transducer part no: 27160

Transducer type: rocking armature earphone

Nominal sensitivity: 115dB SPL/mW

Frequency response: measured via the handset



Impedance: 300ohms \pm 25% at 1kHz (150ohms, 600ohms and 1000ohms also available, as standard)

Microphones

Sensitivities quoted for microphones loaded with a matched impedance, measured at 1kHz using a B & K 4219 voice.

Microphones have a sharply rising response in the range 200 - 900Hz approx. and cut off above 3.4kHz approx. The effect is to suppress typical military and industrial noise which is predominantly low frequency in character.

Transducer part no: 27160

Transducer type: rocking armature microphone. Larkspur compatible.

Nominal sensitivity: -56dB re 1V/Pa

Impedance: 300ohms at 1kHz.

Transducer part no: 27170

Transducer type: rocking armature microphone. Clansman compatible.

Nominal sensitivity: -66dB re 1V/Pa

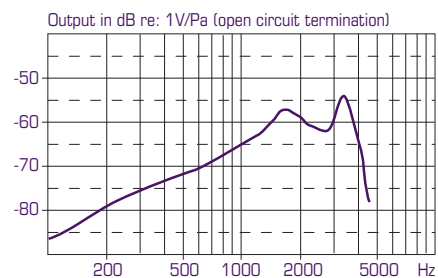
Impedance: 300ohms at 1kHz.

Transducer part no: 27155

Transducer type: rocking armature microphone. Standard US compatible.

Nominal sensitivity: -64dB re 1V/Pa

Frequency response:



Impedance: 150ohms at 1kHz

Transducer part no: 27161

Transducer type: rocking armature microphone.

Nominal sensitivity: -47dB re 1V/Pa.

Impedance: 2,400ohms at 1kHz.

ELECTRICAL DATA

Switches

A variety of single- and two-pole Press-To-Talk (PTT) switches are available.

Cables

A variety of both straight and coiled cables to military standards can be supplied terminated to suit customer requirements

PHYSICAL DATA

Environmental

Usage temperature: -40°C to +55°C

Storage temperature: -40°C to +70°C

Humidity: 5 cycles of 48 hours in accordance with MIL-STD-810, Method 507

Altitude (operating): Up to 3000m above sea level with max. 5dB degradation

Vibration: MIL-STD-202, Method 201

Drop: 10m drops through 1.5m onto concrete with max. 5dB degradation

Bump: 4,000 bumps of 40g

Immersion: 1m for 2 hours

Blast: 30 rounds at peak pressure

62kN/m² with max. 3dB degradation

Dimensions & Mass

Height: 217mm

Width: 46mm

Depth: 78mm max

Mass: 370g (typical)

Materials & Colour

Material: Glass-loaded Nylon

Colours: Olive drab, black, (desert sand, yellow and red to special order).

Stowages

Two types of secure stowage are available, both switched and unswitched.

[Authorised Distributor](#)



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