



RA195 iCombat ANR High-Noise Headset

RA195 iCombat headset delivers exceptional low-frequency noise attenuation with Racal Acoustics ANR technology

Our RA195 iCombat infantry headset is an improved version of the in-service British Army RA195 Combat unit. With two Racal Acoustics active-noise-reduction (ANR) modules, one in each earshell, it meets the latest health and safety legislation for high-noise environments, such as in Warrior and other armored fighting vehicles (AFVs).

The headset includes two low-profile earshells connected by a spring neckband, a soft headstrap, and an adjustable boom microphone. An optional voice-operated switch is available.

It is engineered to improve operational effectiveness by:

- Attenuating AFV noise at the ear
- Reducing noise-induced fatigue
- Improving speech intelligibility
- Protecting users from hearing damage

Features and Benefits

- **Active Noise Reduction**
Independent ANR modules in each earshell for improved noise reduction at lower frequencies.

ANR cancels an unwanted signal by superimposing upon it an identical signal in antiphase. Low-frequency noise within the earshell is detected, phase inverted, and driven back via the earphone, for an effective cancellation rate of 97 percent.

Speech signals detected by the sensor microphone are electronically processed and unaffected by cancellation.

Each ANR module includes a noise-detection microphone, noise-canceling electronics, and two earphones, one for acoustic cancellation, the other for communications. The two earphones also offer failsafe capability, so the unit can operate as a conventional headset in non-ANR situations or during a power or electronic failure.

- **Fit and Comfort**

Contoured earshells and earcushions for maximum comfort, passive noise reduction, and reduced mission fatigue.

Moulded high-density ABS earshells with bi-dynamic foam inserts fit most infantry helmets.



The fully adjustable neckband accommodates all head sizes in the 5 to 95-percentile range, without degradation of acoustic performance. Its spring exerts optimal force to maintain both long-term comfort and an effective acoustic seal in vehicles subject to shock and high vibration.

The adjustable headstrap locates the earshells correctly over the ears. It can be fitted over or under the helmet and incorporates Velcro strips for simple adjustment and rapid attachment and removal.

- **Boom and Respirator Microphone**

Fully adjustable boom-mounted noise-canceling microphone for discrimination between close speech and high levels of ambient noise.

Included is a plastic-foam microphone cover for wind-noise protection. A socket is also provided on the earshell to connect a respirator microphone.

- **Talk-Through**

Improved situational awareness through electronic-valve or talk-through circuit (TTC) developed by Racal Acoustics.

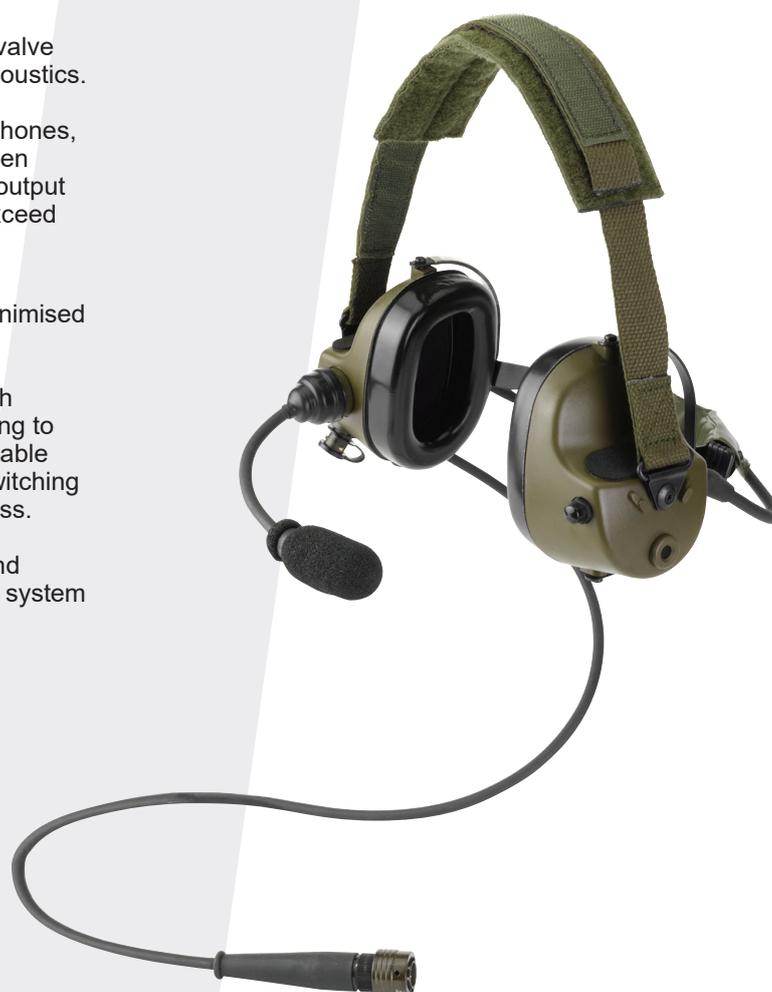
Localised sounds or speech are detected by microphones, mounted on the outside of each earshell, and are then regenerated, binaurally, to retain directionality. The output is electronically compressed so its level does not exceed the health and safety limit of 85 dB(A).

- **Optional Voice Operated Switch (VOS)**

VOS module for hands-free communications and minimised noise exposure during live-mic operations.

Activated only when the crewman speaks, the switch features a self-tracking threshold, constantly adjusting to the noise environment. If required, a version is available that attenuates the microphone signal, instead of switching it off, to provide the crew with greater local awareness.

The module can be integrated inside the headset and features a "low-noise inhibit" function, bypassing the system if background noise is below a safe level.



For more information about the RA195 headset please email sales@racalacoustics.com or call our sales office +44 (0)20 8515 6200