Racal Acoustics Medium-Noise Headsets
RA5001 Raptor Headset with Press-to-Talk
Comfortable, high-performance headset reengineered for next-generation monaural and binaural intercom systems

RA5001 headset offers state-of-the-art hearing protection, comms intelligibility, and situational awareness

The RA5001 Raptor headset includes many design improvements based on more than six years of feedback from users of its very successful precursor, our RA5000 Raptor headset. Its environmental and electromagnetic compatibility has been upgraded in line with the most challenging specifications (MIL-STD-810G and 461F).

It combines monaural or binaural communication, hearing protection, intelligibility, and situational awareness into a lightweight, comfortable and extremely rugged design. It is ideal for use with next-generation commercial and military intercom systems in wheeled vehicles, shelters, and tactical operations centers. The press-to-talk (PTT) unit reduces the headborne weight and allows users to select between microphone, listen-only, and radio modes.

Upgraded Features and Benefits

**Hearing Protection**
Active noise reduction (ANR) for low-frequency vehicle noise and passive noise reduction (PNR) for impulse noise, plus a unique adjustable strap allows users to increase the PNR when desired.

**Communications Intelligibility**
Clear monaural or binaural high-quality speech communications from radios and intercoms.

**Situational Awareness**
Selectable talk-through, powered by one AA battery or by vehicle intercom to save batteries. Independent binaural compression technology reduces impulse noise to a safe level but still allows the user to hear ambient sounds.
RA5001 Raptor Headset with Press-to-Talk

Upgraded Features and Benefits (cont’d)

**Equipment Compatibility**
Comfortable fit under current ballistic helmets, including the US Army ACH, USMC LWH, and Mark 7. The ear-cup design ensures an unobstructed cheek-to-stock weld when operating small arms, with no interference with body-armor collars. Improved MOLLE compatibility with large reversible equipment clip.

Swappable non-ferrous boom microphone and M-116/G microphone port when using M40/M50-series protective masks.

**Testing**
MIL-STD-810G compliance, including immersibility at 1-meter depth for 30 minutes for switchbox and headset, plus an anti-ferrous microphone.  
MIL-STD-461F compliance for clear operation in even the most hostile electromagnetic environment.

**Power**
Powered by intercom when attached. Batteries allow situational awareness capability when disconnected. Automatic reversionary mode allows the headset to work without power.

**Training**
No training required for general operation.

**Comfort**
Designed for long missions. Minimal clamping force and field-replaceable ear cushions ensure comfort throughout product life.

**General Specifications**
- Operating voltage: 13.5-32 V
- Weight on the head: 510 g

**Noise Reduction**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>63 Hz</th>
<th>125 Hz</th>
<th>250 Hz</th>
<th>500 Hz</th>
<th>1000 Hz</th>
<th>2000 Hz</th>
<th>4000 Hz</th>
<th>8000 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean attenuation</td>
<td>13.8</td>
<td>20.8</td>
<td>19.2</td>
<td>15.1</td>
<td>21.6</td>
<td>32.2</td>
<td>36.9</td>
<td>37.1</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>4.1</td>
<td>2.7</td>
<td>2.1</td>
<td>1.1</td>
<td>1.7</td>
<td>2.8</td>
<td>3.9</td>
<td>3.9</td>
</tr>
</tbody>
</table>

**Talk-Through Performance**
- Powered by intercom or an internal 1.5 V AA battery for more than 100 hours of operation
- Compression threshold: limits impulse noise to below 140 dB peak (legal maximum)
- External sound reproduction ratio: 1:0.95

**Environmental**
- MIL-STD-810G
- MIL-STD-461F, with radiated susceptibility above 50 V/m
- Operational temperature: -40° to +51°C
- Storage temperature: -57° to +71°C
- Impact/drop: 2 meters onto concrete
- Switchbox and headset immersible to 1 meter for 30 minutes (IP67)

**Intercom Connectivity**
Configurations are available for a wide range of intercom systems.

**Options**
Please contact us to discuss customization. Options include:
- Connector type
- Special pinout
- PTT configuration
- Bail-out cable
- Cable lengths
- Coiled or straight cables
- Brand labeling
- Soft liner for helmets
- Other accessories

For more information about the Racal Acoustics RA5001 Raptor headset, please email sales@racalacoustics.com or call our UK or US offices.

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