



insta

Pilot Safety products

Improving aircrew safety
with personal flight
equipment



insta.fi/aviation

Insta Active Noise Reduction - Insta ANR



MAXIMUM SAFETY - REDUCED RISK OF HEARING DAMAGE

Insta Active Noise Reduction offers excellent hearing protection for fighter pilots and aircrew. Traditional hearing protection does not perform well in low-frequency military aviation noise environment. By using DSP controlled noise cancelling the Insta ANR system can attenuate frequencies down to 20 Hz. Lowered noise levels reduce the risk of hearing damage, improve radio and intercom intelligibility and improve aircrew performance by reducing the effects of noise on focus and decision making.

DIRECT REPLACEMENT TO EXISTING HELMET EARCUPS

Insta ANR can be installed to most standard aviation helmets, directly replacing existing earcups. The system delivers up to 30 dB of low-frequency attenuation and can be customized for compatibility with a wide range of intercom and helmet systems.

OUTSTANDING PERFORMANCE IN DEMANDING CONDITIONS

Featuring a dual speaker system, Insta ANR ensures uninterrupted communication by isolating the ANR from aircraft intercoms. The system has been tested to maintain high performance - even during cabin pressure changes and in challenging environments.

PROVEN AND TRUSTED

Insta ANR's effectiveness has been validated in both laboratory and flight tests. It is already operational in the Finnish Air Force F/A-18 and has been integrated by Swedish defense and security company SAAB into Gripen fighter jets. The system is also in use across various aircraft types by several customers.

LATEST ANR TECHNOLOGY AND EXCELLENT HEARING PROTECTION

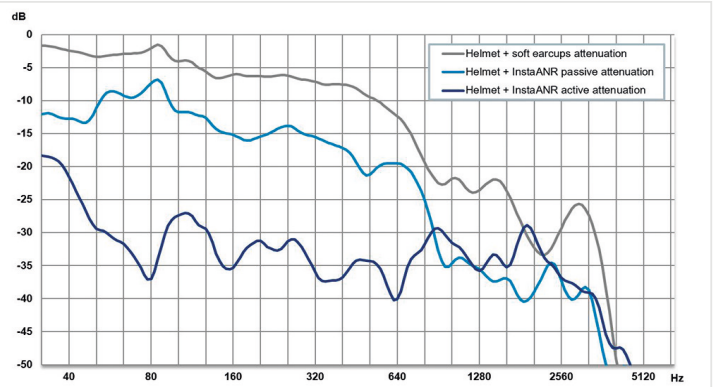
Latest ANR technology

- DSP powered Hybrid ANR topology
- Over 30dB Active Low Frequency Attenuation
- Dual speaker driver system
- Adjustable attenuation response
- High passive attenuation

Easy integration

- Standalone pilot equipment - No A/C integration
- Separated from A/C intercom
- Battery powered
- Velcro attachment
- Comfort ear seals
- Modular design to fit various platforms
- NSN: 5965-58-001-4122

INSTA ANR ATTENUATION VS. SOFT EARCUPS



TECHNICAL SPECIFICATIONS

Response	40-5000Hz ± 6 dB (ANR ON) 70-5000Hz ± 6 dB (ANR OFF) 90dB/mW@1kHz
Attenuation	15dB (<50Hz), 30dB (63...630Hz), >30dB (>800Hz)*
Weight	355g (complete system with batteries)
Interface	Standard U-179A/U audio interface
Power	2xAAA Li-battery, 35hours @100dBc
Impedances	H-143/AIC 19 Ω , 300 Ω (other impedances available)
Operation conditions	-20°C...+50°C Operational -40°C...+60°C Storage
Test conditions	MIL-STD-810 (Env.), MIL-STD-461 (EMI), DO-160G (ESD)

*Variations subject to person and fitment