INVISIO S10

Hearing Protection Headset with Hear-Thru



INVISIO S10

Lightweight Hearing Protection System

Overview

Hearing protection headset with situational awareness

INVISIO S10 is an in-ear hearing protection headset with electronic situational awareness and impulse noise protection. It is connected directly to a radio.

The system consists of an in ear hearing protection headset with a cable mounted control unit housing the electronics for situational awareness and impulse noise protection.

Key Features

INVISIO Bone Conduction Technology

- Industry leading levels of hearing protection (SNR32 dB) and full situational awareness.
- · Crystal clear communication even in high noise conditions.
- · Supports existing radio functionality.
- · Compatible with helmets, gas masks and circumaural headsets.
- Unique headset design with INVISIO soft spring for secure fit and comfort with all day use.

Situational Awareness

360° unimpeded awareness

The control unit includes situational awareness electronics, on/off switch and an AA battery to power the system. As radio communication is separate from situational awareness, radio communication is still possible even if the battery is fully discharged or removed. The situational awareness turns on/off automatically with the radio. It can also be manually turned on/ off as desired by pressing the on/ off button.

Radio Communication

Open microphone

Radio communication and transmission is controlled by the radio. Examples of radio functionality supported by the INVISIO S10 are transmission using a wireless remote PTT, radio side-tone, warning tones from either primary or secondary radio, dual com (primary and secondary radio simultaneously),full duplex (primary radio and

vehicle intercom system), as well as older radio types. The radio signal is received in the left ear and transmission is picked-up in the right ear. Cross talk between encrypted secondary radio and primary radio is eliminated by separating the Rx from the secondary radio and the Tx from the primary radio.

System Size and Weight

Reducing the burden

The INVISIO S10 (including the battery) has a combined weight of only 150 grams. The control unit has the same width as a credit card and only 3/4 of the length. Overall cable lengths have been optimised to ensure efficient cable management on the soldier.

Direct Radio Connect

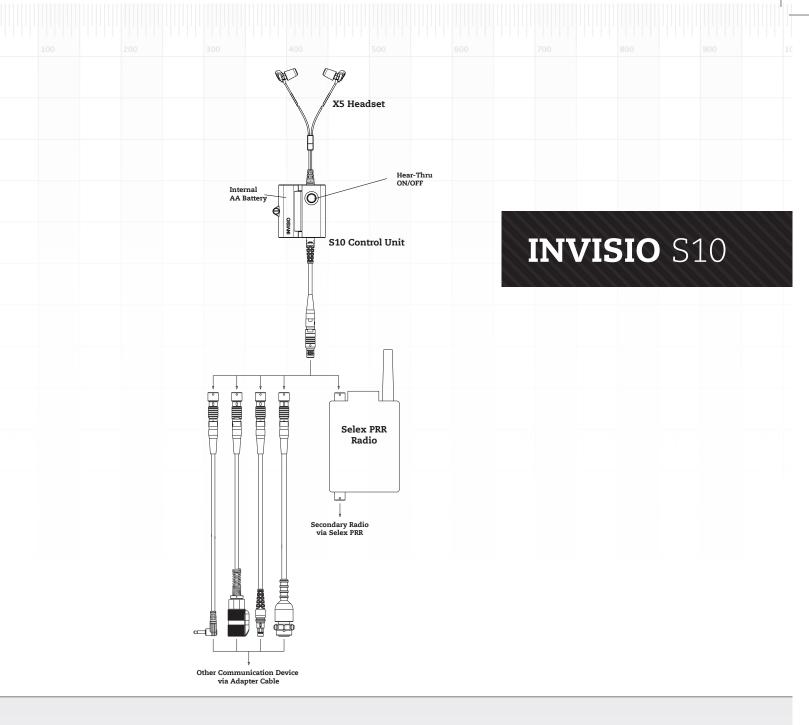
Optimised for use with SELEX PRR

The INVISIO S10 is optimised for use with Selex PRR / EZ PRR With the use of adapter cables the INVISIO S10 can support the use of other tactical radios (including the Thales MBITR series and HARRIS Falcon II and III series), and intercom systems on land air platforms such as ROVIS, SOTAS, VIC-3.









Product System Diagram

The figure above illustrates the different components in the headset system, along with the radio. The headset is hard wired without the need for connectors into the control unit which houses the hear-thru electronics and power supply. A short cable with the radio connector is also hard wired into the control unit, creating a trouble free solution that easily mounts on the soldier. The images below illustrate the INVISIO S10 mounted on the Selex PRR / EZ PRR. It has been designed to ensure that no additional space is required on the soldier.







INVISIO S10 Overview

INVISIO S10 is an in-ear hearing protection and communication system for use on a single radio and includes electronic situational awareness and impulse noise protection. The system consists of an in-ear hearing protection headset with a cable mounted control unit housing the electronics for situational awareness and impulse noise protection. The radio remains as the push-to-talk and only situational awareness is controlled by the INVISIO S10 control unit.



Technical Specifications

Headset		Control Unit	
Colour	Black	Colour	Black
Material	Plastic	Material	Aluminium
Configuration	Dual	System Weight	151 grams (Lithium battery)
Weight	5 grams	Dimensions	L 65.0 x W 57.5 x H 20 mm
Dimensions	W 13.0 x H 11.0 x L 24.0 mm		
Wearing Style	In-ear with Soft Spring™		

Cable		Power Supply	
Colour	Black	Power Consumption	60 mA
Length	Headset 1150 mm and radio 200 mm	Power Supply	Replaceable AA battery
Pull Strength	20 kg	Operating Time	50 hours (Lithium battery 3000mAh)
Connector	ODU Push-Pull (Quick Disconnect)		
Number of matings	> 5000 times		

Box Contents	Environmental			
Headset system	Tested to MIL-STD-810G	Immersion 2 meters for 2 hours		
including headset, control unit and integrated radio cable (x1)	Operating Temperature	-40 to +63°C (Lithium battery)		
Cerumen Stick	Storage Temperature	-40 to +63°C (Lithium battery)		
for removal of ear wax from headset speaker outlet (x1)	Humidity	MIL-STD-810G		
Wind protection foam tips (x9)	Mechanical Drop	MIL-STD 810G		
User manual (x1)				
Velcro strap (x3)				
Packaging box (x1)				

Headset Hearing Protection	Hearing Protection Specifications with Alkaline Battery		
SNR 32 (EN352-2:2002)	Operating Time	42 hours (Alkaline battery 2500mAh)	
NRR 29 (ANSI S3.19-1974)	System Weight	159 grams (Alkaline battery)	
Test results (ANSI S12.6-1997)	Operating Temperature	-15 to +55°C (Alkaline battery)	
	Storage Temperature	-15 to +55°C (Alkaline battery)	

Test results (ANSI S12.6-1997)

Frequency (Hz)	125	250	500	1000	2000	4000	8000
Average Attenuation (dB)	32.1	34.2	35.9	36.7	38.7	43.5	45.9

These results have been obtained and certified at a certified test institute ref. ANSI S3.19-1974. This is in compliance with MIL-STD-1474D Appendix B Hearing Protector Noise Attenuation.

CE Personal Protection Equipment.

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The Soft Spring™ system and Bone Conduction Microphone Technology are patents of INVISIO Communications A/S.
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INVISIO S10 (GDO12564-6)



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