

SS8000 Pro System Stereo (Optical Audio Kit)



Features

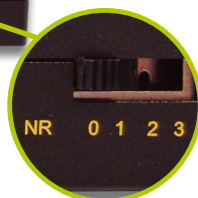
- Complete kit for tactical stereo audio surveillance
- Combines optical microphones and optical stethoscopes
- Non-detectable, high SNR microphone and stethoscope
- Through-wall audio surveillance including false walls with special needle kit
- Battery or external power operated
- Absolute EMI/RFI immunity
- Optional DSP removes ambient noise
- Optional built-in micro-SD recorder

Applications

- Designed for SWAT, Special Task Forces, to capture audio
- Monitoring two separate locations
- Stereo fidelity binaural recording
- Remote monitoring of structure-borne audio signals
- Listening through walls
- Homeland security
- High RFI or EMI areas



The SS8000 features "optional" selectable real-time DSP-based ambient noise removal capability of up to 22dB



Electronic Box E0U350

SS8000 Pro System Stereo (Optical Audio Kit)



Legend:

- 1: 2 x Fiber Optic Microphone
- 2: 2 x Fiber Optic Stethoscope
- 3: DC power supply
- 4: Electronic box EOU300/350
- 5: Blu Tack & two-sided adhesive stickers
- 6: Pro stereo headphones
- 7: Battery 4 x AA 1.5V
- 8: Needle kit
- 9: Audio cable with 3.5mm (0.13") plugs

Technical Specifications

| Item | FOM | FOS |
|---|--|--|
| Frequency response (± 10 dB) | 10 - 15,000Hz | 10 - 5,000Hz |
| Line-out sensitivity | 100mV/Pa $\pm 10\%$ at 1kHz | >10mV @1mg (RMS) |
| Gain control range | | >45dB |
| Equivalent self-noise | ≤ 31 dBa | $\leq 5\mu\text{g}$ |
| Supply voltage | External 8 - 15V DC or 4 x AA 1.5V battery | |
| Current drain (max.) | 100mA | 100mA |
| Output impedance (standard line output) | <100W | <100W |
| DSP latency, 16 kHz sampling | 32msec | |
| Operating temperature range | -20° to +60° C (-4° to 140° F) | |
| Fiber length | 10m (33ft) as a default or longer | 5m (16ft) as a default or longer |
| Dimensions of sensor head | Length: 23mm Diameter: 6mm Weight: 0.6g | Height: 20mm Diameter: 36mm Weight: 16g |
| Battery type recommended | 1.5V LR6 AA Alkaline | |
| Stereo Electronics Box | | |
| Material | Anodized Aluminium | |
| Headphone output | Stereo | |
| Dimensions | 17.5(L) x 8.6(W) x 2.8(H)cm | |
| Weight | 330g (w/out batteries), 430g (incl. batteries) | |

Additional options are available for the microphone like extended temperature range, against night vision detection, wide frequency response, long probe, special pull option, water immersion, and different fiber types.

Warranty

The SS8000 comes with a return-to-base warranty against defective materials and workmanship for a period of 2 years from delivery.

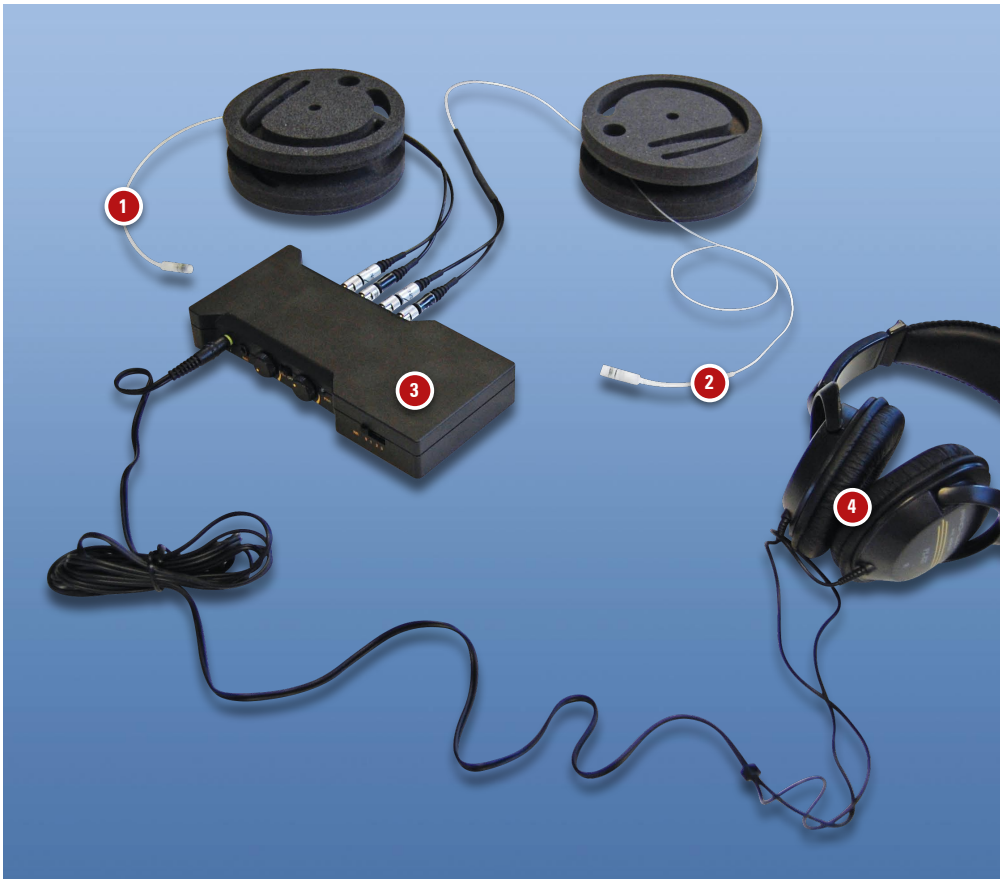
After Sales Support

Technical Support business hours (GMT)
Monday – Friday 8.30am – 5.30pm
technicalsupport@winkelmann.co.uk

Training

Winkelmann and its partners are able to offer training in the operation of products – contact us today for more information.

Stereo FOM System Set-up



Legend:

- 1:** Fiber Optic Microphone
- 2:** Fiber Optic Microphone
- 3:** Electronic box EOU300/350
- 4:** Pro stereo headphones

// The FOM is built around a tiny MEMS membrane and two optical fibers. When acoustic waves impinge on the membrane they cause it to vibrate, changing the intensity of light that is reflected from incoming to outgoing fibers.

Stereo FOS System Set-up



Legend:

- 1:** Fiber Optic Stethoscope
- 2:** Fiber Optic Stethoscope
- 3:** Electronic box EOU300/350
- 4:** Pro stereo headphones

// The FOS sense the microscopic vibration results from sounds and noises inside the room and translates it into audio signals. The FOS is based on a unique optical acoustic technology.

The SS8000 Pro System Stereo (Optical Audio Kit) combines an all-in-the-box tactical stereo audio listening solution based on Winkelmann's unique optical technology for through-air and through-wall audio surveillance. The kit contains dual FOS and FOM components, as well as "optional" selectable real-time DSP-based ambient noise removal capability of up to 22dB.

The SS8000 includes two FOS (Fiber Optic Stethoscope) sensors that enable listening through: concrete walls, doors and windows without the need to be inside the place. The SS8000 also includes a unique needle kit for using the FOS when listening through false (plaster) walls. The FOS sensor is ideal for permanent installation as it is waterproof and it can't be detected by conventional devices.

The SS8000 also comprises two FOM (Fiber Optic Microphone) sensors, which are high quality undetectable microphone used for covert and overt purposes. The FOM records a wide range of audio signals from whispering and typing on keyboard to regular conversations. The optical head does not contain any metal, and the electronic component is connected remotely via an optical cable. These factors make the microphone undetectable by conventional devices; therefore it is optimal for law enforcement applications.

The Dual Channel EOU300 supports monitoring with two sensors simultaneously. It features two pairs of ST-style fiber optic connectors; two 3.5mm stereo sockets (one for stereo analog output, another for headphones); dual volume control knobs; green/red LED voltage indicator. The Dual Channel EOU350 DSP model provides up to 22dB of real-time ambient noise removal (three levels: low, mid, high). Unit is powered either by internal batteries or external DC power supply.

Technology

The FOS sense the microscopic vibration results from sounds and noises inside the room and translates it into audio signals. The FOS is based on a unique optical acoustic technology.

The FOM is built around a tiny MEMS membrane and two optical fibers. When acoustic waves impinge on the membrane they cause it to vibrate, changing the intensity of light that is reflected from incoming to outgoing fibers. Such precision translates to clear sound and low self-noise, and produces exceptional microphone performance.



The SS8000 is designed for SWAT, Special Task Forces, to capture audio

Product Code

SS8000 Pro System Stereo (Optical Audio Kit) – Full System

3-299-674* SS8000 Pro System - Stereo Security Optical Microphone, with 2 x 10m of 1mm PVC coated optical fiber no extension tube, Stereo Fiber Optical Stethoscope, with 2 x 5m of 2 x 3mm zip cord optical fiber, Electro Optical Unit (EOU300)

SS8000 Pro System Stereo + DSP (Optical Audio Kit) – Full System

3-299-675* SS8000 Pro System + DSP - Stereo Security Optical Microphone, with 2 x 10m of 1mm PVC coated optical fiber no extension tube, Stereo Fiber Optical Stethoscope, with 2 x 5m of 2 x 3mm zip cord optical fiber, Electro Optical Unit with built-in noise cancelling via DSP (EOU350)

*All kits come as standard with: audio cable with 3.5mm jack, 8-12V DC power adapter, stereo headphones, 4 x AA batteries, complete mounting kit (plaster wall needle & butterfly screws) & carrying case

The Fiber Optic Microphone (FOM) can be supplied with black 3mm kevlar reinforced cable instead of the 1mm clear PVC cable at no extra cost. Kevlar temperature range -25° to +80°C

SS8000 Pro System Stereo (Optical Audio Kit) – Accessories & Upgrades

3-299-623 Extended temperature range for FOM from -50° to +120° C (-58° to +248° F)
3-229-646 Extension cable type outdoor, 5mm milspec (military standard) (specify length from 10-100m)
3-299-647 Extension cable type outdoor, 5.1mm polyamide, lightweight, rigid (specify length from 10-100m)
3-299-648 Extension cable type indoor, 3mm kevlar reinforced (specify length from 10-100m)
3-299-649 Extension cable type indoor, 2 x 3mm zip cord (specify length from 10-100m) will withstand bending and stepping on it
3-299-667 Internal digital recorder (Micro-SD format) 2-16GB, 44.1kHz, 16bit, no compression > 10 hours / 4 days

For further information contact

Winkelmann (UK) Limited
 Unit 63, Rowfant Business Centre
 Wallage Lane, Rowfant, Near Crawley
 West Sussex RH10 4NQ UK

T: +44 (0) 1342 719024
F: +44 (0) 1342 719030
E: sales@winkelmann.co.uk
www.winkelmann.co.uk