

# WOODPECKER SS040 Mono Fiber Optic Stethoscope



## Features

- Ideal for permanent installations
- Absolute EMI/RFI immunity
- Completely passive sensor with no metal or electrical parts
- Standard analog output
- High reliability and environmental stability
- Optical fiber connection over extended lengths without signal loss
- Difficult to detect
- Cost-effective, long-term solution



## Applications

- Listening through walls
- Remote monitoring of structure-borne audio signals
- Highly explosive areas
- High RF areas
- Severe electromagnetic fields
- Homeland security
- SWAT Teams

Fiber optic contact microphone weighs only 16g



The FOS mono enables you to listen and record through concrete walls, windows, and doors without the need to be inside the room. The FOS is ideal for permanent installations in structures and walls, due to its light weight and waterproof design.

The FOS mono system is comprised of advanced fiber optic contact microphone & single-channel electro-optic unit (EOU200), for digital-to-analog conversion of optical microphone output signals.

The Single Channel EOU200 with enhanced electronics box. It features two analog outputs (one with volume control for headphones, another with fixed gain for monitoring equipment); one pair of ST-style fiber optic connectors; two 3.5mm sockets (one for analog output, another for headphones); green/red LED voltage indicator. Optional DSP model (EOU250) provides up to 22dB of real-time ambient noise removal (three levels: low, mid, high). Unit is powered either by internal battery or external DC power supply.

## Technology

The FOS mono sense the microscopic vibrations results from sounds and noises inside the room and translates it into audio signals. The FOS mono is based on a unique optical acoustic technology. The FOS head includes a safe arm to protect the sensitive sensor. ■

## Technical Specifications

<b>Device type</b>	Contact microphone
<b>Frequency response</b>	10 - 5,000Hz
Conformity 10 - 200Hz	±3.0dB
Conformity 200 - 5,000Hz	±10.0dB
<b>Sensitivity at 1mg (RMS)</b>	10mV
<b>Gain control range</b>	>45dB
<b>Equivalent self-noise</b>	≤5µg
<b>Self-noise density (200 - 5,000Hz)</b>	<150 nano-g/sqrt(Hz)
<b>Maximum acceleration</b>	0.3g
<b>Supply voltage</b>	8 - 15V DC or 9V Battery
<b>Current drain (max.)</b>	80mA
<b>Output impedance (standard line output)</b>	<100W
<b>Amplitude non-linearity</b>	<5%
<b>Operating temperature</b>	-20° to +60° C (-4° to +140° F)
<b>Storage temperature</b>	-20° to +60° C (-4° to +140° F)
<b>Water resistant</b>	Up to 10m
<b>MTBF</b>	>100,000 hours
<b>Contact Microphone Head</b>	
Material	Polycarbonate
Diameter	36mm (1.38")
Height	20mm (0.78")
Weight	16g (0.56 oz)
<b>Mono Electronics Box</b>	
Material	Anodized Alumnum
Headphone output	Mono
Dimensions	11.0(L) x 6.7(W) x 2.7(H)cm
Weight	210g (w/out battery) 256g (incl. battery)

## Product Codes

### WOODPECKER SS040 Mono Fiber Optic Stethoscope – Full System

**3-299-643** SS040 FOS-MB Mono Fiber Optical Stethoscope System, with 5m of 2 x 3mm zip cord optical fiber, Electro Optical Unit (EOU200), audio cable with 3.5mm jack, headphones, 8-12V DC power supply, guidance manual and carrying case

### WOODPECKER SS040 Mono Fiber Optic Stethoscope – Accessories & Upgrades

**3-299-649** Extension cable type indoor, 2 x 3mm zip cord (specify length from 10-100m) will withstand bending and stepping on it

**3-299-654** EOU250 (instead of EOU200) - built-in noise canceling via DSP

**3-299-667** Internal digital recorder (Micro-SD format) 2-16GB, 44.1kHz, 16 bit, no compression > 10 hours / 4 days

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