

SEHT



SH 50-60 AVIATION HEADSET

**USER MANUAL
Edition 1 (2023)**

Welcome

We are so confident this product will bring you of years of trouble free, quiet, comfortable and enjoyable use that we offer not only a full 5 year warranty (by registration, see separate document for details) but we also offer our unrivalled satisfaction guarantee, if you are not entirely satisfied for any reason with the product simply return it (full details available on request)

WARNING!

Please read the information in this user manual carefully and completely before using your headset. Keep these instructions and make them easily accessible to all other users. Always include this user manual when giving this headset to third parties.

In an unlikely event of a problem with your headset, it is recommend to switch to an alternate communication method and to use standard cockpit resource management skills to minimize distraction.

Your aircraft sounds such as engines, propellers, warning alarms and other sound sources may sound differently when using a new headset.

Do not attempt to disassemble the headset as this may void your warranty and result in unexpected performance of your headset. Always refer servicing and repair to SEHT approved service centres. Contact SEHT for details.

Features

The SH50-60 is a high performance ultra lightweight aviation headset, using the latest miniature audio transducer technology and a high sensitivity noise cancelling electret microphone we have produced one of the lightest aviation headsets available today weighing only 130grams. All this means you suffer from less fatigue and can enjoy a more pleasurable user experience.

The SH50-60 uses state-of-the-art engineering to make your flight quieter and your in-flight communications clear and crisp.

Once the ANR power is activated, the SH50-60 reduces unwanted ambient noise in the cockpit through Active Noise Reduction (ANR). This is done by placing a microphone inside the ear tip and generating an “anti-noise” signal through the speakers. The anti-noise and the ambient noise will cancel each other before reaching the ear, resulting in a quieter flight environment. Through this technology, low frequency ambient noise is significantly reduced and you can hear important communication in a clear, crisp manner.

The SH50-60 will continue to operate as a standard aviation headset when the ANR becomes inactive for any reason, such as low or no battery power.

Using the SH50-60

Fitting your headset correctly is essential to ensure the correct performance and above all to make it comfortable to use.

The following steps will assist you in achieving the correct and optimum fit:

1. Place the headband behind your head not over the head.
2. Hang the earpiece wire around your ear
3. Put the earbud inside the ear.
4. Move the earphone around in order to get the best comfort and noise cancellation balance.



5. **Earbud selection** - Choosing the right size earbud for your ear is very important to achieve the best performance. Each headset includes 3 pairs of replaceable silicon rubber earbuds (shown below), the medium size is fitted by default to the headset.



6. **Headband adjustment** - The headband does not need to fit tightly on the back of the headset. To make adjustments to the headband. Holding the metal band in front of you use both hands to apply equal pressure to expand or contract the size as desired.



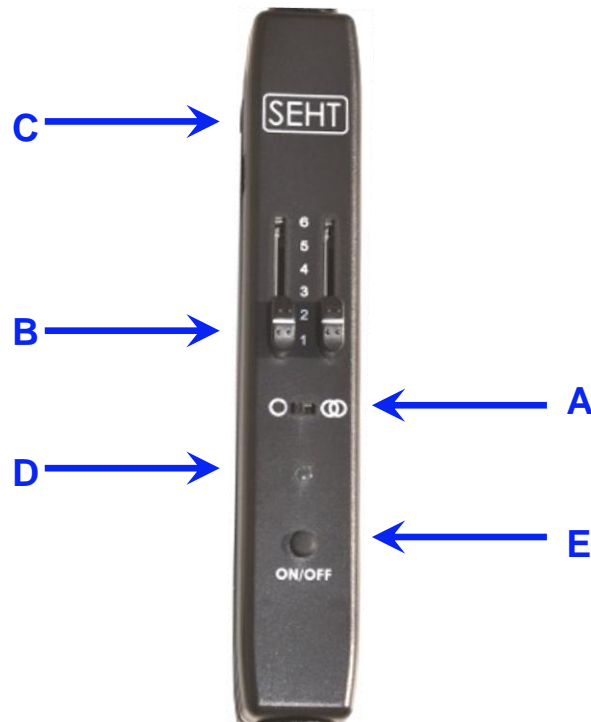
7. **Ear loop adjustment** - It is important that the ear loops feel comfortable when the headset is on. Hold the base of the loop and adjust the bracket openings to the desired shape for a comfortable, light fit. Please ensure you are not pulling the speaker wires



8. **Microphone adjustment** - Position the microphone 1/8 inch from your mouth with this side of the microphone facing the mouth (windshield removed)



Understanding Controls



Stereo/Mono selection (A)

Whether you should use Mono or Stereo setting depends on your aircraft's avionics. Incorrect setting will result in communication being heard in only one side. For most general aviation aircraft the mono setting is required.

Volume adjustment (B)

Each ear volume can be independently adjusted. The overall headset volume will be determined based on the settings on the headset as well as the aircraft's intercom or radio.

Caution: Avoid setting the volume levels too high. Exposure to loud sounds may cause hearing damage.

Auxiliary Input Jack (C)

A 3.5mm stereo jack lead (supplied) can be connected to an external audio source. Volume is set by the external device, please set this so it does not interfere with communication channels.

Power Indicator (D)

The indicator lights green when the ANR function is ON

ANR Power Switch (E)

With the switch in the ON position the ANR circuits are activated, with the switch in the OFF position (or if the batteries are depleted the headset reverts to Passive mode with ANR assistance.

Batteries

The ANR function of the SH50-60 requires two AA batteries. Use alkaline batteries from a trusted brand for the best performance. Rechargeable batteries are discouraged because they provide uneven voltage, which interferes with ANR functionality. The SH50-60 will continue basic transmit and receive operation without batteries. DO NOT mix old and new batteries.

A set of brand new high quality set of alkaline batteries can provide up to 30 hours of battery life. However, the exact duration depends on the amount of noise reduction required in your cockpit. To maximize battery life turn off the ANR function when the headset is not in use.

To install the batteries open the battery compartment door, push down slightly and slide the cover to the side (from left to right in the picture below). When inserting the batteries into the battery compartment ensure that the negative terminals go toward the spring and the positive terminals go toward the + symbol.



To power ON the headset briefly press on Power ON/OFF button until the green LED illuminates.

To power OFF the headset briefly press the Power ON/OFF button again.

Pro Tips

1. Clean ear tips perform better. Keep the ear tips clean and free of ear wax to extend their useful lifetime.
2. Wash the ear tips with water and mild soap if desired
3. Ensure the headset is fitting correctly by reviewing the adjustments listed in this manual
4. The ear tip should be inserted all the way to provide an all-around seal in the ear canal
5. Position the microphone in front of your lips for maximum noise cancellation
6. Set Mono/Stereo setting to match your aircrafts avionics, if set to the incorrect setting audio will be lost in one ear.

FAQ

- Q) Why can I hear in only one side?
- A) The SH50-60 headset is compatible with both Stereo and Mono aircraft avionics. If your headset is set to the incorrect setting for your aircraft hearing will be lost in one side.
- Q) Why do I need to speak louder to activate the microphone?
- A) Your avionics' squelch setting must be adjusted correctly. It is common for every pilot to change the squelch setting just like adjusting the volume. Please consult someone who is familiar with your aircrafts avionics if you cannot locate the squelch knob or button.
- Q) How often should I change the replaceable earbuds?
- A) Change your earbuds when giving the headset to another person or when tips appear soiled or contaminated, generally a pair of tips will last few months before needing to be replaced
- Q) Where can I purchase replacement earbuds?
- A) You can purchase official SEHT replacement earbuds from your local SEHT stockist or directly from the SEHT website.

Technical Specifications

General

Battery power supply:	3V (two AA batteries)
Operating Temperature:	-20 to 70°C
Storage Temperature:	-35 to 75°C
Cord Length:	180cm
Weight:	175g

Headphone

Type:	Dynamic
Frequency Response:	50 Hz-20kHz
Sensitivity:	95 ± 5dB SPL

Microphone and Amplifier

Type:	Noise-cancelling Electret
Frequency Response:	100Hz to 5kHz
Operating Voltage:	8-32VDC
Matching impedance:	150-1000 ohms
Sensitivity:	-33 ± 4dB

Active Noise Reduction

Main Attenuation Frequency Band:	20Hz-700Hz
Power Consumption:	30mW