

AEROTION AVIATION AS1 USER MANUAL

Introduction

The AS1 Active noise reduction headset is the ideal choice for all intermediate/advanced pilots who are regularly flying and require high performance features.

Aesthetically pleasing, comfortable and unbeatable active noise reduction of 29dB, the premium AS1 headset is low-priced yet still delivers quality and offers advanced features like Aux in, ANR, plush leather ear seals, and a reversible mic boom designed for left or right microphone placement.

Headset Fitting information

1. Rotate the flexible boom overhead to wear the microphone on either the right or left side of the head.
2. Rotate the headset volume control (on the side of the ear cups opposite the microphone boom) fully counter-clockwise to the minimum position, before the headset plug is inserted into the aircraft or intercom.
3. With the headband resting securely on the top of the head, check that the ear seals are centered over the ears.
4. For best noise cancellation, position the microphone in front of your lips.
5. Insert the microphone plug into the aircraft or intercom microphone jack. Insert the earphone plug; into the aircraft or intercom earphone jack.
6. Turn on the ANR via the switch located on the battery box. The LED will turn green and flash to show active. When the batteries are running low, the LED will flash red/orange.

Specifications

PNR Noise Reduction Ratings (NRR): 23dB
ANR Noise Reduction Ratings (NRR): 29dB
Headphone
Type: Dynamic ϕ 30
Frequency Response: 50 Hz to 20 kHz
Sensitivity: 95 \pm 5 dB SPL
(1 kHz, 1 mW input per earcup side)
full volume on ear simulator
Active Noise Attenuation:
Dynamic 42 ohms:
Rate Input: 30mW Max. Input: 100mW
Speech Sound: Dynamic 300 ohms
Rate Input: 30mW Max. Input: 100mW
Microphone and Amplifier:
Element Type: Noise -canceling electret
Frequency Response: 100Hz to 5 kHz
Operating Voltage (supplied by aircraft): 8-32 Volts DC
Matching Impedance: 150-1000 ohms
Sensitivity: 33 \pm 4 dB (Ref: 0dB SPL=20.0uPa at 1 kHz
with 10 Vdc 150 ohms AC load)

General:

Temperature: Operating: - 20 to 70°C
Cordage: Straight cord from headset to molded plug, 150CM

Intercom Connections:

Earphone Plug: PJ-055 (.25" 6.3 ϕ phone plug)
Microphone Plug: PJ-068 (.206" 5.2 ϕ phone plug)
Weight : 510g

Noise Reduction Specifications:

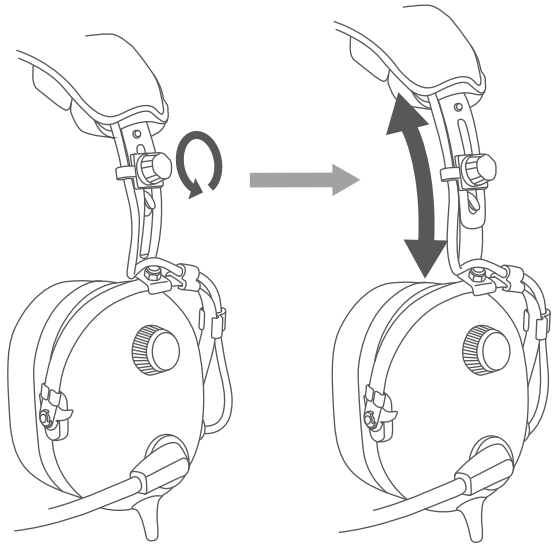
Attenuation Frequency Band20Hz~20 KHz
Main Attenuation Frequency Band20Hz~ 600Hz
Power Consumption 30mW
Headset size range Height: 10 to 14 cm
Color: Black Boom: Flexible Boom

Headset noise attenuation data

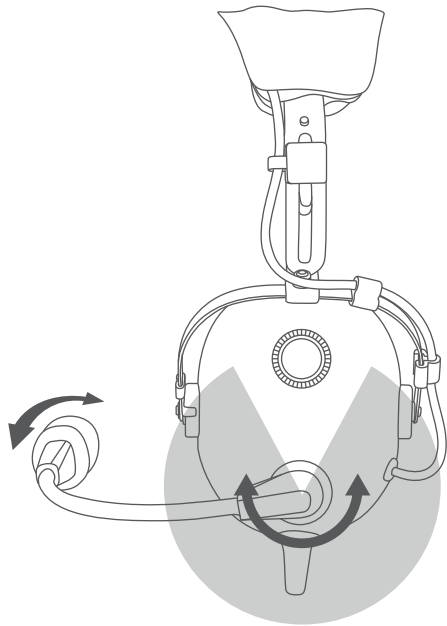
Frequency [Hz]	125	250	500	1000	2000
Attenuation [dB]	14.3	21.5	27.1	31.8	36
Standard Deviation	3.3	2.4	1.5	1.6	1.3

Frequency [Hz]	3000	4000	6000	8000
Attenuation [dB]	39.5	41.3	39.7	37.0
Standard Deviation	2.1	2.1	2.0	1.3

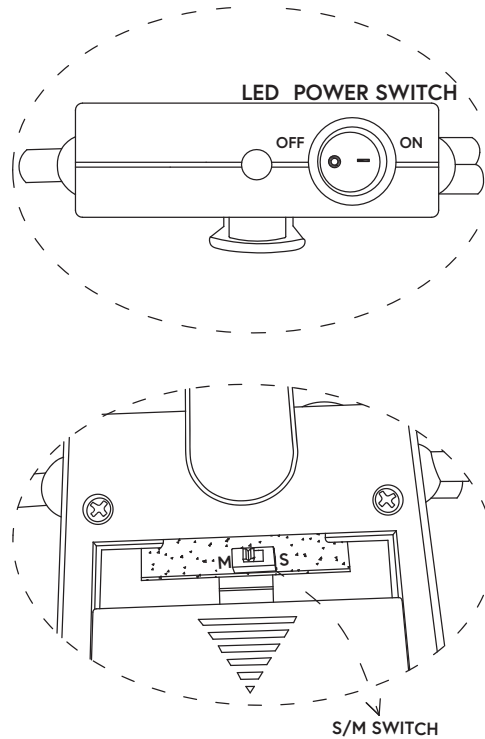
Operation Instructions



Adjustment for a personalized fit on the headset is simple and easy. The correct fit is important both for comfort and optimal noise reduction.



To adjust the microphone placement, rotate the microphone from its base and bend the flexible boom.



Stereo/Mono Switch

In our aviation headsets, the 'stereo - mono' switch (marked S – M) allows each earphone speaker to operate on a separate channel when the switch is in the 'stereo' position, and switches both earphone speakers on to the one 'mono' channel when in the 'mono' position.

When the switch is in the 'M' mono position, both earphone speakers will emit sound regardless of whether the input to the headset is from a mono or stereo source.

When the switch is in the 'S' stereo position for stereophonic sound, sound will be emitted by both earphone speakers if there is a 2 channel input from a stereo source, but only one earphone speaker will emit sound if the sound source is a single channel mono source.

Warranty service

All Aerotion Aviation headset our covered by a no-quibble, 12 month warranty.

We provide a one-year warranty for the product, the warranty period starts from the day of receipt of the goods.

During the warranty period, we will repair or replace the product according to the situation for various defects caused by the raw material or production process of the product.

The above warranty does not include the following:

- 1.Exceeding the warranty period
- 2.Dismantle headset without permission
- 3.Damage caused by force majeure such as immersion, moisture, mold, and natural disasters
- 4.Natural aging, wear and consumption of consumable materials such as shells, ear pads, and head pads

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Headset microphone troubleshooting

1. **(PS1 & PS2 only)** While talking to a passenger, rotate the mic resistance on the inline volume control box slowly, both clockwise & anticlockwise until your voice can be heard clearly. The mic resistance works off the pitch/volume of your voice so there is no right position for every pilot.
2. Making manual adjustments to both the aircraft intercom and radio squelch will 9 out of 10 times fix all microphone issues. Not all radio/transceivers have an adjustable squelch setting however they are becoming more common. If you are unsure, please advise us of the make and model of your radio and we will send you instructions.
(Instructions below for the most common intercom setup)
3. Test in both Mono & Stereo (Marked **M** (mono) & **S** (stereo) on inline controller) as this can affect the mic resistance.
4. Ensure both headset connectors are firmly inserted into the aircraft sockets. The connectors at the end of the headset cable might have debris or corrosion on them. Apply a small amount of isopropyl alcohol to a cloth, wipe the metal connectors, then dry them with a clean cloth. Once cleaned and dried, connect the headset and try again.
5. Lastly, check that the mic is the correct way round and the mic inlet is facing your mouth as below:



Most common process for adjusting Intercom squelch

To adjust squelch, first make sure nobody speaks for a few seconds. Then turn your intercom volume up much higher than normal to make it easy for you to hear an open mic. Now turn the squelch knob, or ring, counter clockwise until you hear the microphone click open. You will probably hear a hiss or hum and any ambient cockpit noise such as the engine will be fed into your headset. Now turn the knob or ring slowly clockwise just until the noise is suppressed. Once you're done, you should readjust the intercom volume to a normal level to avoid yours or your passenger's voice blasting your eardrums. Finally, do a mic and volume test for each of the passengers.

The radio/transceiver should also have a manual squelch adjustment. If you are unsure how to adjust this, please advise us of the make and model and we will send further instructions.