

TELEX TECHNICAL DATA

Air 3500 Passive Noise Attenuating Headset

CE



General Description

The Air 3500 Headset is a new passive noise attenuating headset that demonstrates Telex's ongoing commitment to provide the maximum possible hearing protection in noisy aircraft cockpits. Using the latest design and modeling techniques, the engineering staff at Telex has been able to maximize the amount of hearing protection provided by the Air 3500, while at the same time minimizing weight. The headband has also been carefully designed to assure wearer comfort on long flights. The Air 3500 is available in versions for fixed-wing and helicopter use. FAA TSO approval C57a and C58a.

Features

- Design focus on maximum noise reduction with minimum weight. The boom and earcup mountings are also used as the cord entrances to minimize the number of openings in the earcups. The size and shape of the earcups is optimized for broad-spectrum noise reduction. As a result, even the hard-to-manage low frequency noises are better attenuated, while at the same time the headset is noticeably lighter than other models currently available.
- Bottom-mounted microphone boom. Unlike most older headset designs, the microphone boom on the Air 3500 mounts to the bottom of the earcup rather than to the side. This assures unobstructed peripheral vision.
- Three quick-set headset pressure settings: Lets the user select the comfort/noise attenuation setting based on the amount of aircraft noise and personal comfort requirements. Dual-eccentric tension adjustment knobs allow the user to quickly and easily dial-in the desired setting. No tools are required for adjustment.
- Set-and-forget headband size adjustment: Detented headband sliders allow any user to quickly and easily adjust the headband size for best fit. The headband remains adjusted due to the detent action of the sliders. No tools are required for adjustment.
- Comfortable foam-filled headband pad and ear cushions. The headband pad evenly distributes the headset weight, with no pressure points, for maximum wearer comfort. The ear cushions combine comfort and light weight with excellent acoustic seal. An outer urethane layer ensures long life. Gel-filled ear cushions are also provided with the headset for users who prefer this type. All cushions are field-replaceable.
- Noise-canceling, amplified electret condenser microphone provides the best overall performance. Output gain is easily adjusted through a small opening in the microphone housing, and no disassembly is required. The microphone/amplifier cartridge unsnaps for easy replacement.
- The microphone boom and microphone assembly may be worn on either side of the head.
- Separate volume controls for each ear.
- Field replaceable, wide response dynamic receivers.
- Stereo/Mono Switch (Fixed-wing Version). A slide switch on the cord lets the user get the most from the aircraft sound system. The wide-response receivers provide high-quality music reproduction.
- Cadmium-bronze wire and tapered strain reliefs ensure long cord life. Polypropylene insulation over wires and urethane jacket for maximum durability. Shielded wire is used throughout for RFI and EMI protection.

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Specifications

Receivers

Type: Dynamic
 Impedance: Accepts 150-600 ohm sources
 Frequency Response: 350 Hz - 3.0 kHz (6 dB)
 Sensitivity: 90 (5 dB SPL for 1 mW, 1 kHz input
 Maximum Power Input: 30 mW

Microphone/Amplifier Assembly

Microphone Type: Noise-canceling electret condenser
 Output Impedance: 50 ohms (designed for radio input impedances from 50-600 ohms)
 Frequency Response: 100 Hz - 3.5 kHz
 Sensitivity: -48 ±6 dB (ref: 1V/ μbar @ 1 kHz with 12 Vdc and 470 ohms dc load; 150 ohms ac load per FAA TSO requirements)
 Operating Voltage: 8-16 Vdc

Cords and Plugs

Air 3500, general aviation version:
 Cord: 5.5 ft (1.7 m) "Y" cord with stereo/mono selector switch
 Receiver Plug: 1/4" stereo phone plug
 Microphone: PJ-068 equivalent

Air 3500HE, Helicopter version:
 Cord: 5.5 ft. (1.7 m) coiled cord
 Plug: TP-120, U-93A/U, U-174/U equivalent

Physical

Weight: 13.6 ounces (381 grams).
 Colors: Non-reflective satin black and wrought iron gray.

Sound Attenuation Data

Center Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean Attenuation (dB)	17.6	21.7	26.6	28.0	33.5	35.5	37.0	38.8	38.7
Standard Deviation (dB)	2.6	1.7	1.9	1.6	1.9	2.1	2.7	2.4	3.1
Headband Clamp Force = 2.1 lbs Noise Reduction Rating (NRR) = 24 dB									
Note: Measurements were made according to the American National Standard Institute (ANSI) S3.19-1974 by Michael and Associates, Inc. These laboratory-derived attenuation data are for comparison purposes only, as the amount of protection afforded in field use is often significantly lower depending upon how the headphones are fitted and worn.									

Ordering Information

Description	Catalog No.
Air 3500 Aviation Headset, General Aviation Version	300400-000
Air 3500HE Aviation Headset, Helicopter Version	300400-001
Foam Ear Cushions (Set of 2)	800147-001
Gel-filled Ear Cushions (Set of 2)	800027-002
Replacement Head Pad	800146-000
Model PT-300 Push-To-Talk Switch	63966-000
Windscreen.	57012-001

Patents pending

