LIGHTSPEED®

Sierra® User Guide

Welcome

Congratulations on purchasing a Lightspeed Aviation Sierra® headset. Your headset is a premium product that will provide many years of comfortable high performance for your flying endeavors.

If this is your first Lightspeed Aviation headset—welcome to the Lightspeed family! We look forward to building a lasting community with our customers founded on products and service that are best in class. To support your passion for flying we invite you to visit LightspeedAviation.com where you'll find useful insights about our other products and aviation.

Thank you for choosing a Lightspeed Aviation headset.

Contents

Introduction

Your Sierra headset package includes (clockwise, from top left on the following page):

- Carrying case

- User and Quick Start guide with warranty information

- Sierra ANR headset with Sierra controller

- Two AA batteries

- Cord clip

- Audio device cable with 3.5mm connector

Getting Started

Fitting your headset

Fitting your headset properly is the key to comfortable use and superior Active Noise Reduction (ANR) capabilities. To gain peak performance from the ANR feature it's necessary to have a solid seal around your entire ear combined with a symmetrical fit on your head.

The following tips will assist in achieving the proper fit.

A. Fit your ears entirely within the ear cups providing a solid seal.

B. Rest the headband lightly on top of your head with the right and left sliders extended to equal lengths.

C. Position the microphone ⅛ inch from your mouth, with the gain adjustment cap facing away from you (visible when you remove the mic muff).

This side of the microphone should face *away* from you.

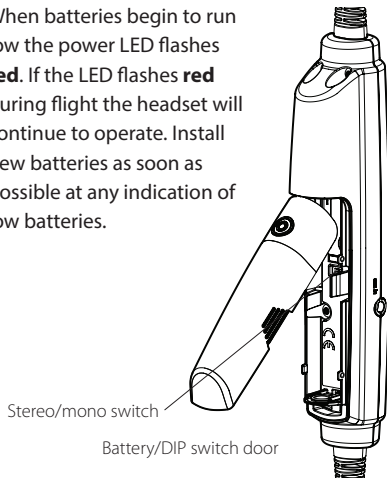Note: The microphone will not transmit unless plugged into an intercom.

Battery installation

The Sierra headset requires two AA batteries (included). Use alkaline or lithium batteries for best performance.

A. Open the controller battery/DIP switch door by either pressing down on the circle icon or by pulling open the door along the notched edges. Insert two AA batteries with the correct polarity positioning.

B. The LED flashes GREEN when charged batteries are in use and the power is on.

C. When batteries begin to run low the power LED flashes **red**. If the LED flashes **red** during flight the headset will continue to operate. Install new batteries as soon as possible at any indication of low batteries.

Stereo/mono switch

Battery/DIP switch door

Getting Started

Battery types

Use two "AA" alkaline or lithium batteries. Lithium batteries may provide improved battery life in colder temperatures. We do not recommend using rechargeable batteries or mixing battery types and brands.

Battery life

A set of batteries can provide up to 40 hours of power. However, heavy usage of *Bluetooth*® wireless technology can significantly reduce battery life. Under quiet conditions Sierra will auto shut off approximately five minutes after the headset is removed from your head.
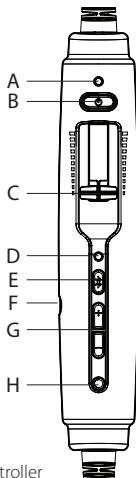
The controller

A. Power indicator LED: Flashes **green** when power is supplied to Sierra and batteries are strong. Flashes **red** when batteries are low.

B. Power button: Powers on headset, turning on Active Noise Reduction (ANR). Press button once to turn Sierra on; press and hold to turn Sierra off. To toggle the LED brightness from bright to dim quickly press the power button twice.

C. Volume control: Controls audio panel volume with individual sliders for each ear. Does not affect the volume of auxiliary devices.

D. Bluetooth indicator LED: Flashes **blue** when Bluetooth mode is on and **red** when Bluetooth

wireless technology is being turned off. In pairing mode, flashes alternating **red** and **blue**.

E. Bluetooth button: Turns on and off the Bluetooth wireless technolgy signal and controls devices connected via Bluetooth wireless technology, including cell phones and music players.

F. Auxiliary input jack: Provides a wired input for cell phones and audio devices.

G. Bluetooth volume buttons: Controls the volume of devices connected via Bluetooth wireless technology.

H. ComPriority button: Quiets music and audio from auxiliary devices during radio communications.

The Sierra controller

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Using Your Sierra Headset

Turning ON and OFF

ON: Press the power button once to turn on the headset. The **green** power LED flashes when power is supplied. Active Noise Reduction (ANR) is engaged when you turn on the headset.

OFF: Press and hold the power button until the **green** power LED turns off.

Sierra will auto shut off approximately five minutes after removing the headset and under quiet conditions.

The power LED flashes **red** when batteries are low; see Battery Installation, on page 5.

Matching stereo/mono setting to an audio panel

The stereo/mono DIP switch setting should match the signal from your audio panel. For a stereo panel, best performance is gained by setting the headset for stereo. The same is also relevant to a mono panel. Incorrect settings result in communications being heard in only one ear. The Stereo/Mono DIP switch does not affect auxiliary devices, so you can enjoy auxiliary audio in stereo regardless of how the Stereo/Mono DIP switch is set.

Setting the DIP switch

The DIP switch is factory set to match most aircraft audio panels. To change a DIP switch setting open the controller battery compartment door. Use a small pointed object like a wood

toothpick to slide the DIP switch to ON or OFF depending on your preference.

ComPriority™

ComPriority is turned on or off by the bottom-most controller button. With ComPriority on and when radio communications are detected, the volume of auxiliary devices will be significantly reduced.

To enable ComPriority, turn on the feature, plug into your intercom and talk into the headset microphone while playing music over a wired device; see Wired Auxiliary Devices in the next section. If enabled, your auxiliary music volume will decrease when you start to talk. During cell phone calls, the other party will be muted, so disable ComPriority before making calls.

Using Your Sierra Headset

Wired auxiliary devices

To connect a music player or cell phone to Sierra's auxiliary input jack, use the cord provided.

IMPORTANT: To use a cell phone via the auxiliary input jack, the headset must be connected to the intercom.

To adjust the volume on a device connected to Sierra's auxiliary input jack, use the controls on the device itself.

Connecting Devices with Bluetooth Wireless Technology

Connecting devices with Bluetooth wireless technology for the first time

Before using a cell phone or other Bluetooth wireless technology enabled device for the first time with Sierra, it must be "paired" or electronically connected.

To pair a Bluetooth wireless technology enabled cell phone with Sierra:

1. Turn on the headset and verify the **green** LED is flashing. Make sure Sierra's Bluetooth mode is turned **off**. **Blue** or **red** flashes from the Bluetooth LED should not be present (see "Bluetooth Mode—ON and OFF", page 11).

2. Press and hold the Sierra Bluetooth button for about five to ten seconds or until the Bluetooth LED continually flashes **red** and **blue**. This indicates the Sierra pairing mode setting and lasts about two minutes. If this step takes longer and the Bluetooth LED is no longer alternating **red** and **blue**, start over from step one.

3. With Sierra in pairing mode, follow the menu prompts on your Bluetooth wireless technology enabled device directing it to look for Bluetooth wireless technology devices.

4. Select Lightspeed-V### (numbers may vary) on your Bluetooth wireless technology enabled device from the list of found devices.

5. If asked to enter a password or PIN, enter 0000.

Bluetooth Wireless Technology Enabled Devices

Your Bluetooth wireless technology enabled device should now be paired and ready for continued use with Sierra.

Bluetooth mode—ON and OFF
ON: With Sierra turned ON, press and hold the Bluetooth button (see page 7) until you hear a high tone and the Bluetooth indicator LED flashes three **blue** pulses. For first time pairing see instructions on page 10.

OFF: Press and hold Sierra's Bluetooth button for about three seconds until a high tone is emitted and the Bluetooth indicator LED flashes three **red** pulses.

Note: The Bluetooth wireless technology feature must be turned ON for devices with Bluetooth wireless technology to correctly function.

When you turn on the Sierra Bluetooth mode it will connect to the most recently paired device. Most Bluetooth wireless technology devices connect to Sierra automatically. If that doesn't happen it may be necessary to use the device's menu of found devices to manually connect to Lightspeed-V### (numbers may vary).

Note: The headset mic will not work with phone calls unless plugged into the intercom.

Bluetooth Wireless Technology Devices

Bluetooth wireless technology phone features

Depending on the Bluetooth wireless technology profile of the phone, you can use Sierra's Bluetooth buttons to perform several functions. Some typical functions are:

- Press the Bluetooth button once for voice dialing (if supported by your phone).

- Press the Bluetooth button once to answer the phone when it rings.

- Press the Bluetooth button once to disconnect from a call.

- Press and hold the Bluetooth button for two seconds to redial the last number called.

- Use the Bluetooth volume buttons (Sierra's + and – buttons) to adjust the volume.

FlightLink

FlightLink is the first in-flight cockpit recording application for the iPad® and iPhone.® The free app works seamlessly with all new Lightspeed headsets to capture and retrieve all incoming and outgoing communications.

Features

- Record all activity over the intercom

- Immediate replay of ATC calls

- Store high resolution or compressed files in your library

- Draw notes, codes, or diagrams on the convenient iPad scratchpad for reference

How to Activate

- Download the FlightLink app from the App Store

- Tap the icon on your iPad or iPhone to begin using the app

Toggling Between Apps

Press your device's Home button and select another app. Your recording will continue uninterrupted as you switch between different applications. A red bar at the top of the screen indicates FlightLink is recording.

FAQs

Why do I hear radio communications in only one ear?
Sierra's Stereo/Mono DIP switch is probably set to Stereo while your audio panel is transmitting a mono signal. To fix this, change Sierra's Stereo/Mono DIP switch to Mono. This setting does not affect music or audio from auxiliary devices; you can hear stereo sound on auxiliary devices even when the Stereo/Mono DIP switch is set to Mono.

When pairing Sierra with my Bluetooth wireless technology device, why does my device indicate it cannot connect?
The headset may not be in pairing mode. To enter pairing mode, you must start with Bluetooth mode turned fully OFF; (see "Connecting devices with Bluetooth wireless technology for the first time," on page 10).

Why doesn't my Bluetooth device accept Sierra's 0000 passcode?
Your headset may not be in pairing mode. Some devices prompt for a pass code without checking for pairing mode. When the device cannot pair with the headset, it rejects the passcode. To enter pairing mode, you must start with Bluetooth mode turned fully OFF (see "Connecting devices with Bluetooth wireless technology for the first time," on page 10).

Why can't the other party hear me when I make a call?
When you speak into the microphone during a call, Sierra's ComPriority feature decreases

the volume by 80%. To prevent this, disable ComPriority before placing calls (See page 9).

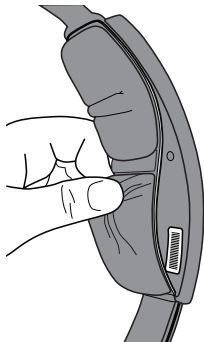**How can I reduce static noise during cell phone calls?**
To reduce RF interference during phone calls, keep cell phones at least 12 inches from the Sierra controller and headset when making calls.

When flying what causes a warbling noise in the ear cup?
If your ear is not entirely inside the cup, with a tight seal, air can seep in and cause the ANR to compensate for uneven internal cup pressure.

Where is my product serial number?
The serial number (a small, white, bar-code sticker with numbers) can be found on the headset underneath the head pad. The head pad, located on the inner radius of the headband, must be removed to reveal the serial number. Simply pinch the cushioned part of the head pad, pull down and it will snap out.

Peak Performance Tips

- Start with an excellent fit—see "Fitting your headset," on page 4.

- Set Sierra's Stereo/Mono DIP switch to match the signal from your audio panel; see "Matching Sierra's Stereo/Mono setting to your audio panel signal," on page 8.

- Keep cell phones at least 12 inches from the Sierra controller and headset when making call to reduce static noise during phone calls.

- To conserve battery life, turn OFF Bluetooth mode when not in use.

- Lightspeed recommends replacement of the soft goods on your headset (ear seals, head pads and mic muffs) every 18 months to ensure peak ANR performance and comfort. These are wear items and are not covered by the Lightspeed warranty and are available for purchase on our website at LightspeedAviation.com/Accessories.

- When packing your headset into its case, place the mic just over the headband to avoid chafing the boom.

Specifications

Connector
Dual general aviation connectors with .250-inch commercial stereo headphone plug and .206-inch MIL-SPEC microphone plug

General
Battery power supply: 3V, two AA batteries
Weight: 16 oz.

Headphone
Transducer: 40mm moving coil
Frequency response: 20 Hz-20 kHz
Nominal impedance @ 1 kHz:
Off—Mono: 180 ohms, On—Mono: 300 ohms
Off—Stereo: 250 ohms, On—Stereo: 600 ohms

Microphone
Transducer principle: Noise-canceling electret
Frequency response: 200 Hz-6000 Hz
Maximum SPL: 114 dB
Terminating impedance: 220–2200 ohms
Operating voltage: 8V-16V DC

ANR
Maximum SPL: Greater than 120 dB at 100 Hz

Warranty Information

We encourage you to register your headset at our website LightspeedAviation.com. That way, if your headset ever needs servicing, registration helps assure quick and efficient processing.

5-Year Limited Warranty for New Aviation Headsets Sold by Lightspeed Aviation, Inc.

Lightspeed Aviation, Inc. ("LSA") warrants that the new aviation headset sold by LSA ("New Headset") is free from all material defects in workmanship and materials. For the New Headset, all warranties provided by LSA and all implied warranties imposed by law are limited to a 5-year period, beginning on the purchase date shown on the New Headset's sales receipt ("Warranty Period"). This 5-year Limited Warranty ("Limited Warranty") is provided solely for the benefit of the initial purchaser of the New Headset ("Purchaser"), and it excludes all 3rd parties, including distributors, dealers, retailers, subsequent owners, and other users of the New Headset. This Limited Warranty is not assignable and remains in full force and effect during the Warranty Period, but only if the New Headset: (a) has been properly maintained; (b) has not been abused or misused; and (c) has not been repaired, altered, or modified without LSA's approval. This Limited Warranty specifically excludes all taxes, shipping costs, and problems relating to any: (1) repair, alteration, or modification not approved by LSA; (2) abuse or failure to properly maintain the New Headset; (3) faulty workmanship by any person, except LSA or its approved agent; (4) operation of the New Headset, except as specified in its operating manual; (5) ordinary wear and tear; or (6) finish and appearance item. For each claim made under this Limited Warranty ("Claim"), Purchaser must, within 10 days of discovering a New Headset problem indicating a breach of this Limited Warranty, deliver to LSA a written notice that explains in detail the New Headset's specific defect, that shows proof of Purchaser's purchase of the New Headset before the end of the Warranty Period, and that shows proof that this Limited Warranty applies to the New Headset. LSA or its agent may investigate any Claim. For each Claim, LSA may, in its sole discretion, choose any of the following exclusive remedies: (l) repair or replace the New Headset or any part thereof, without charge to Purchaser, but first Purchaser must return the New Headset to LSA's authorized repair facility, pre-paying all shipping charges, and Purchaser must accept the same as repaired or replaced at the

facility's location (i.e., FOB the facility) within 10 days of the date of LSA's completion notice sent to Purchaser, or else LSA will deem the New Headset abandoned, in which case LSA may keep, sell, or otherwise discard it; or (II) refund the New Headset's purchase price to Purchaser. Without paying any amount to Purchaser, LSA may keep, sell, or otherwise discard all replaced New Headsets and parts thereof and all New Headsets where LSA has refunded the purchase price to Purchaser. In repairing or replacing any New Headset, LSA may, in its sole discretion, use new, used, or reconditioned parts or provide a refurbished used headset as a replacement. In connection therewith, LSA warrants that all new, used, or reconditioned parts or refurbished used headsets will be free from all material defects in workmanship and materials during the Warranty Period and for a period of up to 90 days thereafter, but only to the extent that such event occurs during the final 90 days of the Warranty Period. LSA may, in its sole discretion, (i) establish separate, additional, non-warranty repair and replacement programs for any new or used headset ("Non- Warranty Service Programs"), (ii) the Non-Warranty Service Programs may cover any time period, before or after any Warranty Period has expired, and (iii) charge any amount and impose any term with respect to any Non-Warranty Service

Program. For Non-Warranty Service Programs, LSA warrants that all new, used, reconditioned, or refurbished parts and headsets used to repair or replace any headset will be free from all material defects in workmanship and materials, but only for a limited period of 90 days thereafter. Purchaser acknowledges that used or reconditioned parts may be used to repair any new or used headset, and that a refurbished used headset may be provided as a replacement for any new or used headset. LSA may hire a 3rd party to repair or replace any new or used headset. "Including" means "including, but not limited to. " THE TERMS IN THIS DOCUMENT ARE THE ONLY TERMS THAT GOVERN LSA'S WARRANTY OBLIGATIONS FOR ANY NEW OR USED HEADSET OR PART THEREOF. NO ORAL OR OTHER WRITTEN TERM APPLIES. THIS DOCUMENT PROVIDES THE EXCLUSIVE REMEDY FOR ALL CLAIMS AGAINST LSA WITH RESPECT TO ANY NEW OR USED HEADSET OR PART THEREOF. NOTWITHSTANDING ANY PROVISION TO THE CONTRARY IN THIS LIMITED WARRANTY, LSA RESERVES THE RIGHT TO MODIFY, AT ANY TIME AND FROM TIME TO TIME IN ITS SOLE DISCRETION, ANY AND ALL TERMS IN THIS LIMITED WARRANTY. EACH SUCH MODIFICATION IS DEEMED EFFECTIVE UPON PUBLICATION ON LSA'S WEBSITE OR OTHERWISE.

Please register your headset at LightspeedAviation.com
to optimize your customer experience.

Bluetooth®   Works with **iPhone**   Works with **iPad**

LIGHTSPEED®

Lightspeed Aviation
6135 Jean Road
Lake Oswego, Oregon 97035

sales@lightspeedaviation.com
service@lightspeedaviation.com

800.332.2421 *toll free*
503.968.3113 *tel*
503.968.7664 *fax*

LightspeedAviation.com