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 2

Getting started

Fitting your headset 6

Battery installation 7

Battery types 7

Battery life 7

Controller 8

Using your Sierra headset

Turning ON and OFF 9

Matching stereo/mono setting to an audio panel 9

Setting the DIP switch 9

ComPriority™ 10

Wired auxiliary devices 10

Mic gain adjustment 10

Bluetooth wireless technology enabled devices

Connecting Bluetooth wireless technology enabled devices for the first time 11

Bluetooth mode—ON and OFF 12

Bluetooth wireless technology phone features 13

FlightLink 14

FAQs 15

Peak performance tips 17

Specifications 18

Warranty information 19

Introduction

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

- Carrying case
- Quick Start guide with warranty information
- Sierra ANR headset with Sierra controller
- Two AA batteries
- Cord clip
- Audio device cable with 3.5mm connector

LIGHTSPEED
Sierra Quick Start Guide

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.

1. Extend the sliders fully.
2. Place the headset on your head and compress the sliders slowly and evenly on each side until the headset fits firmly on your head.
3. Adjust the ear cups to ensure the ears are fully inside the ear seal and there is uniform pressure on your head.
4. 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.

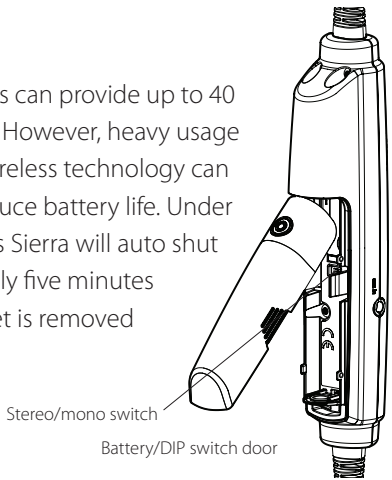
C. When batteries begin to run low the power LED flashes **red**. If the LED flashes **red** during flight the headset will continue to operate. Install new batteries as soon as possible at any indication of low batteries.

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.



Getting Started

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.

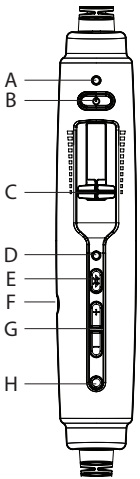
D. Bluetooth indicator LED: Flashes **blue** when Bluetooth mode is on and **red** when Bluetooth wireless technology is being turned off. In pairing mode, flashes alternating **red** and **blue**.

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

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 7.

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.

Using Your Sierra Headset

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.

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.

Mic Gain Adjustment

You can think of microphone gain as a volume control for your microphone, helping balance loud and soft voices in a multi-headset environment. To access the gain adjustment dial, remove the foam windscreen on your microphone and then remove the small cap next to the Lightspeed logo. Turn the dial clockwise to increase gain sensitivity and counterclockwise to decrease gain sensitivity. Move the dial in small increments (think one-hour increments on a clock face) and test it in your aircraft. Replace the cap and foam windscreen when you are satisfied with the adjustment.

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**. (See "Bluetooth Mode—ON and OFF", page 12).
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.

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

Bluetooth Wireless Technology

Bluetooth mode—ON and OFF

ON: With Sierra turned ON, press and hold the Bluetooth button (see page 8) until you hear a high tone and the Bluetooth indicator LED flashes three **blue** pulses. For first time pairing see instructions on page 11.

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.

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

When you turn on Bluetooth mode again, it will connect to the most recently paired device. Most mobile devices connect to Sierra automatically. If that doesn't happen it may be necessary to use the settings menu of your device to choose and re-pair Lightspeed-V### (numbers may vary).

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. You can also adjust the volume on your device.

FlightLink

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

Features

- Record all activity over the intercom, as well as in-cabin conversation.
- Playback the prior two seconds or two minutes.
- Store your recording library.
- Draw notes, codes, or diagrams on the convenient iPad scratchpad for reference.

How to Activate

- Download the FlightLink app from the App Store.
- Connect your Apple® device to the controller using the supplied auxilliary device/iPhone cable.
- The recipient of a cell phone call will hear all sounds on the intercom. To avoid this, unplug your headset from the panel during phone calls.
- Tap the icon 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.

NOTE: If you simultaneously use an app that provides audio, you will need to run it on a second device to prevent interruption of FlightLink recording.

Why do I hear radio communications in only one ear or weakly in both?

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 11).

Why doesn't my Bluetooth-enabled 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 11).

Why can't the other party hear me when I make a call?

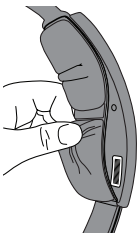
When you speak into the microphone during a call, Sierra's ComPriority feature decreases the volume by 80%. To prevent this, disable ComPriority before placing calls (See page 10).

FAQs

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 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.



Why doesn't my phone auto-reconnect via Bluetooth when the headset is turned back on?
Powering off your headset does not automatically send Bluetooth disconnect command to the BT module in the headset and as a result Bluetooth loses its connection retention ability. To improve your Bluetooth auto-reconnect experience, turn off the Bluetooth on your headset (press Bluetooth button and hold until blinks red three times) then power off your headset. After turning on the headset, press and hold the Bluetooth button until you hear a high tone and the Bluetooth indicator LED flashes three BLUE pulses after which you should see in your mobile device change from "Not Connected" to "Connected" (in your mobile device Bluetooth menu). If reconnect still does not occur, manually reconnect via the mobile device Bluetooth menu.

Peak Performance Tips

- Start with an excellent fit—see "Fitting your headset," on page 6.
- 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 9.
- 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: (I) 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. "

Warranty Information

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.

TO THE EXTENT ALLOWED BY LAW: LSA DISCLAIMS AND PROVIDES THIS LIMITED WARRANTY IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. LSA IS NOT LIABLE FOR CONSEQUENTIAL, INCIDENTAL, PUNITIVE, INDIRECT, SPECIAL, LOST PROFITS, OR SIMILAR DAMAGES CLAIMED UNDER ANY STATUTE OR LEGAL OR EQUITABLE THEORY. LSA'S TOTAL LIABILITY FOR ALL CONTRACT, TORT (INCLUDING NEGLIGENCE), STATUTORY, OR OTHER CLAIMS ARISING FROM OR RELATING TO THIS LIMITED WARRANTY OR ANY HEADSET OR PART THEREOF IS LIMITED TO $1,000. SOME STATES DO NOT ALLOW THE LIMITATION OF CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MIGHT NOT APPLY TO PURCHASER. THIS LIMITED WARRANTY GIVES PURCHASER SPECIFIC LEGAL RIGHTS, AND PURCHASER MIGHT HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE.

FOR PURCHASERS IN CALIFORNIA: PURCHASER HAS THE RIGHT TO HAVE THE NEW HEADSET SERVICED AND REPAIRED DURING THE WARRANTY PERIOD. THE WARRANTY PERIOD WILL BE EXTENDED FOR THE NUMBER OF WHOLE DAYS THAT THE NEW HEADSET HAS BEEN OUT OF PURCHASER'S HANDS FOR WARRANTY REPAIRS. IF A DEFECT EXISTS DURING THE WARRANTY PERIOD, THIS LIMITED WARRANTY WILL NOT EXPIRE UNTIL THE DEFECT HAS BEEN FIXED. IF ANY WARRANTY REPAIR HAS BEEN DELAYED BECAUSE OF CIRCUMSTANCES BEYOND PURCHASER'S CONTROL, OR IF ANY WARRANTY REPAIR DID NOT REMEDY A DEFECT AND PURCHASER NOTIFIES LSA OF SUCH FAILURE WITHIN 10 DAYS AFTER THE REPAIR, THE WARRANTY PERIOD WILL BE EXTENDED FOR A PERIOD EQUAL TO THE DURATION OF THE DELAY. IF, AFTER A REASONABLE NUMBER OF ATTEMPTS, THE DEFECT REMAINS UNFIXED, PURCHASER MAY RETURN THE NEW HEADSET FOR REPLACEMENT OR REFUND, SUBJECT TO A REASONABLE DEDUCTION FOR PURCHASER'S USE OF THE NEW HEADSET. ANY EXTENSION OF THE WARRANTY PERIOD DOES NOT AFFECT ANY PROTECTION OR REMEDY AVAILABLE TO PURCHASER UNDER APPLICABLE LAW.

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

Cert: 0046503
Lightspeed Aviation, Inc.'s Management System is Registered to ISO 9001:2015

Certified System™
ISO 9001
QMS-SAI Global

Bluetooth®

Works with iPhone

Works with iPad

Per FCC 15.19(a)(3) and (a)(4) This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Per FCC 15.21, The user manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:
This device may not cause interference; and
This device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
l'appareil ne doit pas produire de brouillage;
l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

© 2022 Lightspeed Aviation, Inc. All rights reserved. ComPriority and Auto Shutoff are trademarks of Lightspeed Aviation, Inc. Sierra and Lightspeed are registered trademarks of Lightspeed Aviation, Inc. iPhone® and iPad® are trademarks of Apple, Inc., registered in the U.S. and other countries. "Made for iPhone" and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPhone or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPhone or iPad may affect wireless performance. The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Lightspeed Aviation is under license. Other trademarks and trade names are those of their respective owners. Specifications are subject to change without notice. Part Number 704-00001-000. REV0322

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

LIGHTSPEED®