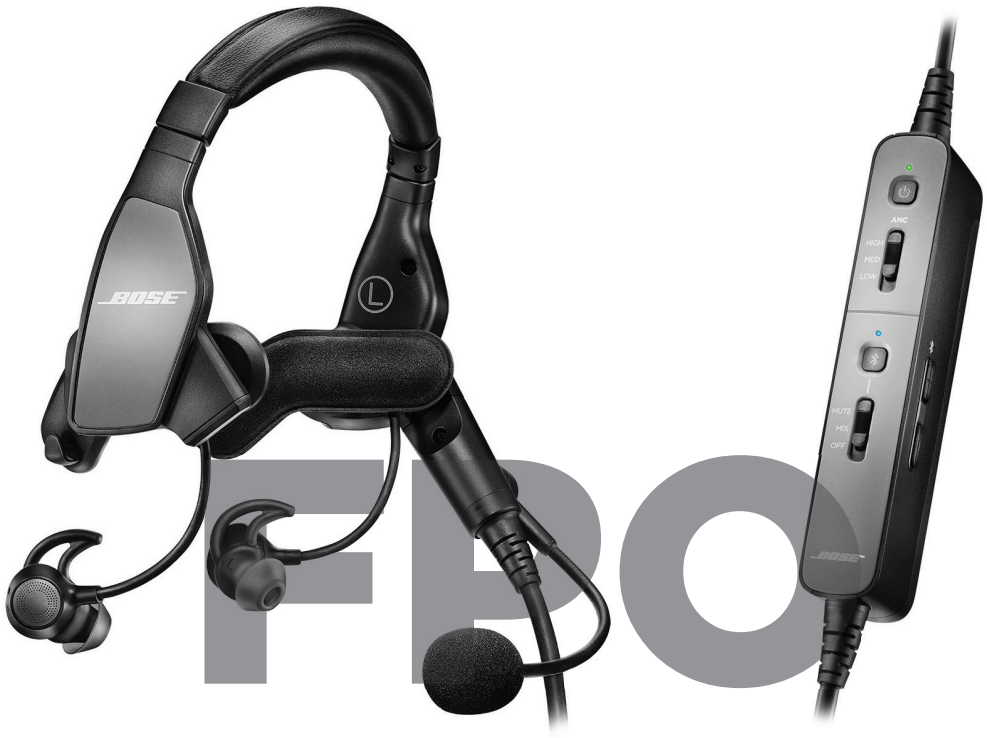

FREQUENTLY ASKED QUESTIONS

GENERAL PRODUCT QUESTIONS

What is the Bose ProFlight Series 2 Aviation Headset?

The Bose ProFlight Series 2 Aviation Headset is the industry's smallest, quietest and most comfortable active noise cancelling aviation headset. With an on-head weight of 4.5 ounces (128 grams), the new ProFlight Series 2 Aviation Headset is designed for long term comfort and is Bose's most innovative aviation headset to date. Engineered for pilots of moderately noisy pressurized turbine powered aircraft, it incorporates more than 30 U.S. utility and design patents. The ProFlight Series 2 Aviation Headset features three modes of user selectable active noise cancellation, active equalization to improve intelligibility of incoming transmissions, a noise cancelling microphone for clearer outgoing transmissions, improved tap control for talk-through communication and full-function *Bluetooth*® connectivity with smartphones, tablets or EFBs. ProFlight Series 2 introduces a non-*Bluetooth* product variant. The ProFlight Series 2 Aviation Headset is FAA TSO and E/TSO-C139a certified, meets all applicable ARINC standards and is available with three different plug types.

Best used where noise is pervasive, comfort is required and where communication is critical, the ProFlight Series 2 Aviation Headset expands the Bose product line, providing headsets for both the general and commercial aviation markets.

How is the ProFlight Series 2 different from the previous model?

We've made several improvements based on customer feedback. The most significant improvement is a thinner, lighter cable with much greater flexibility that provides improved comfort and stability, and reduces on-head weight by 0.4 ounces (11 grams). Tap control for talk-through communication has been improved. The microphone boom now includes winglets to assist in correct mic alignment and adjustment. Finally, the carry case has been improved to aid in faster stowage and transportation with the addition of a hanging loop and carabiner, and a more open internal design.

How is the ProFlight Series 2 different from other aviation headsets?

Bose's most advanced aviation headset ever, ProFlight Series 2 features a unique combination of benefits. Industry-leading active noise cancellation in aviation comes with a comfortable, stable fit, without compromising the clear audio and simple operation you expect from Bose.

We've engineered a high level of comfort into a unique in-ear design unlike any other headset – a highly stable configuration without the usual intrusive deep-insert eartips.

The ProFlight Series 2 includes the same features as the previous version: three user selectable modes of active noise cancellation, a quick-release, side-swappable cable and mic, Bose Acoustic Noise Cancelling® technology, full-function *Bluetooth* connectivity and unique tap control for talk-through communication. Additionally, ProFlight Series 2 incorporates a lighter, more flexible cable and refinements to tap control for talk-through communication have been made. A non-Bluetooth product option is now available.

Two AA batteries power 45+ hours of use with *Bluetooth* off and at least 25 hours with *Bluetooth* on. Aircraft-powered variants are also available. Users switch seamlessly from battery power to aircraft power without compromising headset performance. All models feature auto-off, which powers down the headset automatically when not in use. Select models offer auto-on.

Why did Bose choose an in-ear configuration versus the more traditional on- or around-ear configuration?

Bose has the technology that furthers the in-ear design's performance and provides a great balance of comfort, noise reduction and audio.

How many new and existing patents does ProFlight Series 2 have?

This product is covered by more than 30 new and existing U.S. utility and design patents. ProFlight Series 2 is one of the most heavily patented products Bose has ever produced.

What is the difference between the ProFlight Series 2 and A20 headsets?

They are completely different headsets and have different fundamental architectures, although they share features such as *Bluetooth* capability, selectable stereo/mono and auto-on/auto-off. The A20 features an around-ear design and is meant for noisier aircraft, such as non-pressurized single engine models. The ProFlight Series 2 features a headbanded, in-ear design and is meant for crewed aircraft, typically pressurized and less noisy, like most jets.

What is included in the box with the Bose ProFlight Series 2?

The ProFlight Series 2 Aviation Headset comes with:

- Cable and control module
- Carrying case with carabiner
- Two AA batteries
- Control module lanyard
- Quick-start guide
- Warranty card
- Owner's guide
- Three sizes of silicone eartips
- Pouch

How do I know what size of eartip I'm using?

White, grey and black secondary colors found on the attach (inner) point of the silicone eartips identify the size. White is small, grey is medium and black is large.

Does the ProFlight Series 2 come with an app?

Yes. The Bose Connect App, with Apple® and Android™ compatible versions, is free to download. The app is not necessary or required for headset operation. The app does provide unique functionality to the headset, including:

- Music/Audio share
- Easy connecting and renaming of connected *Bluetooth*® devices
- Product tour and troubleshooting info
- Periodic updates to provide additional capability

Why doesn't the Bose ProFlight Series 2 have volume knobs?

There is a volume control/sensitivity switch inside the headset control module battery compartment to simplify and slim the module. This easily accessible two-position switch allows coarse-tuning. Fine-tuning the volume is typically done on the aircraft audio panel.

I've heard ProFlight has issues with some aircraft. Is ProFlight Series 2 compatible with all aircraft?

Bose has designed and certified ProFlight Series 2 to FAA TSO C139a, and RTCA/DO-214A, Minimum Operational Performance Standards for Aircraft Audio Systems and Equipment. The headset should be compatible with any aircraft that conform to these standards.

Please note: Some older aircraft, particularly the MD80 and MD88 models, appear to use a constant current mode for their hot mic intercom mode. Bose has encountered instances where certain aircraft intercom systems will cause microphone damage and/or failure due to overheating. If you intend to use ProFlight Series 2 with these aircraft types, please consult with your aircraft technical team to ensure the intercom system operates within the specified microphone bias voltage range and avoid using "always on" mic configurations.

How many different versions and configurations are available for the Bose ProFlight Series 2?

Customers can configure their ProFlight Series 2 Aviation Headsets in many ways. Customers have their choice of connector configurations with each module. Each connector configuration is available with *Bluetooth*®, and non-*Bluetooth* variants in dual-plug and 5 pin configurations. Designed for use in both civilian and military aircraft, the ProFlight Series 2 offers most common plug configurations:

Dual G/A plug (PJ 068 and 1/4-inch stereo) – With this option, the headset is connected to the aircraft's intercom via a dual plug and is not powered by the aircraft. Two AA alkaline batteries provide a minimum of 45 hours of operation while flying. This configuration is the most common version purchased by pilots.

XLR 5 pin – Often called the Airbus plug, this configuration is a mono connection to the aircraft and, depending on the installation, may be powered by the aircraft. When disconnected, the flexible power feature lets the headset switch seamlessly from aircraft power to battery power so users experience no interruption when the headset is plugged into or unplugged from a source of power.

XLR 7 pin – The latest ARINC defined standard pin connection, which provides for binaural audio, aircraft power as well as separate grounded audio, microphone and EMI/EMF shields. Although not in wide use yet, it is being adopted by the airline industry as a new standard plug type.

6 pin connector wired to the aircraft (LEMO) – With this option, the headset is connected to the aircraft via a 6 pin connector and is powered directly from the aircraft. When disconnected, the flexible power feature switches the headset seamlessly from aircraft power to battery power so users experience no interruption when the headset is plugged into or unplugged from the aircraft.*

*Adapters are available from Bose to convert a 6 pin connector to either a dual G/A plug or a U174 for additional connection flexibility.

How long is the ProFlight Series 2 Aviation Headset's cable?

	Length (m)			
	Headset to CM	**CM**	**CM to Aircraft**	**Total**
ProFlight	1.33	0.1	0.58	2.0

Can I comfortably wear glasses with the Bose ProFlight Series 2?

Yes. The side pads rest slightly behind and above the ear, which allows you to put on and remove eyeglasses without touching the headset. You can wear almost any frames you want without sacrificing noise reduction or comfort.

Can I switch the microphone to either side?

Yes. The integrated boom mic and cable assembly can be attached to either the left or right side of the headset. The self-guiding connector makes it easy to attach the boom mic and cable assembly. The cable swaps easily in seconds and without tools.

How does the ProFlight Series 2 work in open cockpits or in aerobatic aircraft?

We do not suggest using the headset in open cockpits or outside of the protective area behind a windscreen (typical in open cockpits). Exposure to the slipstream will negatively impact performance. The low clamping force and lightweight structure may not be stable enough for vigorous aerobatics. We recommend that users use the headset on a 30-day trial to make sure it works properly in their aircraft.

Does the ProFlight Series 2 have an equalizer (EQ) or a way to equalize the headset audio?

The ProFlight Series 2 has multiple built-in equalization circuits. The primary ICS/radio communications path is designed to meet the latest TSO standard. An additional active EQ optimizes the experience through the secondary (*Bluetooth*) audio path. (Not available in non-*Bluetooth* option.)

TECHNOLOGY FAQ

What is the latest technology in the Bose ProFlight Series 2?

The ProFlight Series 2 includes a number of important technologies. The most significant is the digital active noise cancellation earbuds, which offer comparable active noise reduction performance provided by the industry-leading Bose A20, but with less passive noise reduction. The headset performs in loud environments and across a wide range of frequencies with Bose proprietary microchip and microphones both inside and outside each bud. The small electronics system better senses the sound by more effectively measuring, comparing and reacting to produce an opposing cancellation signal. A proprietary eartip design provides additional passive attenuation. The carefully selected materials of the headset eartip block more noise from the ear and further improve comfort. The headset features a high-performance microphone for communication, *Bluetooth*® audio and a communications interface, all weighing in at just a fraction of the weight of many competing aviation headsets.

NOISE CANCELLATION FAQ

How much noise reduction does the Bose ProFlight Series 2 provide? What is the attenuation at different frequencies?

The ProFlight Series 2 provides three different modes of user selectable noise cancellation. Each mode is engineered for a distinct use.

"Low" optimizes interpersonal communication outside the use of an intercom system. "Medium" provides consistent noise reduction across a wider range of frequencies. "High" provides the greatest amount of active noise reduction, maximizing the signal-to-noise ratio for radio communication.

Bose makes no claim about specific levels of noise reduction. Such numbers cannot accurately describe what you will hear when using the product. We encourage pilots to try the product in a variety of aircraft to experience the dramatic performance and capability of each mode for themselves.

What is the EPA-rated attenuation of the Bose ProFlight Series 2?

The current methods specified by the EPA Noise Reduction Rating (NRR) cannot be applied to active noise cancelling devices, only passive devices. That's why you see the NRR on traditional aviation headsets, but not on noise cancelling aviation headsets. The EPA has for many years evaluated redefining the NRR to include active noise cancelling devices in its scope, however, the latest TSO guidelines call out ANSI test standards, which do relate to active noise reducing aviation headsets, and to which Bose contributed to and complies with.

How easy is it to hear other crew members in a lower noise environment with the headset on?

Because active noise reduction technology excels at the lower frequencies (below 1khz), the ProFlight Series 2 will not completely cancel voices. Essentially, this means that in many situations, voices can be heard where they would usually be completely drowned out by aircraft and wind noise. In addition, the "low" mode of operation is designed to optimize communication outside the use of the intercom. Tap control for talk-through communication puts the tapped earbud into this low mode and improves directional hearing to this ear.

Does Bose offer noise cancellation in helmets for aircraft or motorcycles?

At this time, Bose does not offer active noise reduction within helmets. But Bose conducts ongoing research to solve problems with unique technology offerings.

AVIATION

COMFORT FAQ	
How comfortable is the Bose ProFlight Series 2?	The ProFlight Series 2 achieves the highest level of comfort through thoughtful placement and shape of the side pads, the choice of materials, the low overall on-head weight and clamping force, and an exclusive silicone eartip design that allows for long term comfort without sacrificing stability. Additionally, the ProFlight Series 2 has distinct left and right eartips with a quick-release, side-swappable microphone and cable for improved comfort and ergonomics.
What makes the ProFlight Series 2 so comfortable?	Overall, the ProFlight Series 2 is one of the smallest and lightest active noise cancelling aviation headsets on the market. Its weight and size is a balance of function, comfort and excellent stability. The three sizes of the patented silicone eartips, which sit comfortably in the bowl of the ear, contribute to greater comfort.
What is the weight of the headset without cables?	The headset only weighs 3 ounces (85.2 grams), while the headset and half of the upper cable with the boom mic weighs 4.5 ounces (128 grams).
What material are the earbuds made of?	Soft silicone.
I see Bose now advertises the availability of custom molded ear tips for ProFlight Series 2. Why are these being offered?	Bose is focused on ensuring all customers enjoy superior comfort and audio quality when using our products. The ProFlight StayHear+ ear tips provide a comfortable fit which will satisfy most customers. We realize that it is not possible to accommodate every ear shape due to the wide variety of physiological differences and personal preferences. To this end, Bose is working with a small group of approved partners who can provide custom-molded ear tips to those customers who wish to personalize their headset with custom-fit tips. Custom molded ear tips can offer some benefits, such as slightly improved stability in the ear, and possibly a better acoustic seal for those users who find our standard tips unsuitable. These advantages may be offset by being more difficult to insert and remove and may not end up as being as comfortable as the standard tips for longer term use. These factors are ultimately a user choice, and Bose feels that making more options available for user fit and personalization is better for our customers. Please contact Bose for a list of the latest approved partners for custom molded ear tips.
Are there tests for the earbuds for ear health safety and long-term use? Are there any tests regarding skin reactions or test certificates?	Bose does extensive tests to assure that the products we use do not cause skin irritation. However, there are instances of allergic reactions to many different types of materials. When possible, Bose chooses materials that yield the best results for biocompatibility.
Can the new headset be worn by pilots who suffer from auditory eczema (exostosis)?	Bose has been selling these tips for years with millions of units in operation without any significant issues. In any case, customers with skin conditions should consult a doctor for advice. It is important to know that the buds do not fit deeply in the ear canal; they are meant to rest carefully in the concha or bowl of the ear and should not aggravate or irritate the skin in the canal.
Could a hearing aid be worn under/ behind the earbud?	Please consult with a qualified medical professional before using any Bose Aviation headsets in conjunction with hearing aids.

BLUETOOTH® AUDIO INPUT FAQ (applicable to *Bluetooth*-equipped models)

What is the purpose of the *Bluetooth* input?

The ProFlight Series 2 Aviation Headset's full-function *Bluetooth* wirelessly connects any *Bluetooth* enabled external audio source, including smartphones, tablets or EFBs, and GPS devices.

Is it legal to use a *Bluetooth* device in the cockpit?

Yes. The responsibility for permitting and using devices that emit a radio signal or that are considered personal electronic devices is with the pilot or the owner/operator. Depending on the country, circumstance and use case, different methods of qualification and approval may be required.

How do I control the volume of the *Bluetooth* audio?

The user may control the volume directly on the audio source if connected via *Bluetooth* or with the volume controls on the side of the ProFlight control module.

Which *Bluetooth* profiles does the ProFlight Series 2 have?

These *Bluetooth* profiles are offered: HFP, A2DP, AVRCP and multipoint.

Can I use the ProFlight Series 2 Aviation Headset's *Bluetooth*® function even when it is unplugged from the intercom?

Yes. As long as the headset is turned on, audio can be played through the *Bluetooth* connection. However, *Bluetooth* audio will not play when there is less than two hours of battery life left in the headset (on *Bluetooth*-equipped models).

How do I know if my phone is compatible with the ProFlight Series 2?

The ProFlight Series 2 is designed with *Bluetooth* ADK 4.2. If your device is compatible with *Bluetooth* 4.1 or previous versions, it is compatible with the ProFlight Series 2.

What does the blue or purple light mean on the *Bluetooth* module?

The blue and purple lights on the *Bluetooth* module indicate the status of the *Bluetooth* functionality.

Type of light	Indicates
Purple light flashing with power LED	Discoverable or pairing, not connected to device
Blue light flashing with power LED	*Bluetooth* ON and connecting or connected to device
OFF	*Bluetooth* not enabled

CUSTOMIZABLE AUDIO PRIORITIZATION FAQ (Applicable to *Bluetooth*-equipped models)

What is customizable audio prioritization?

Priority switching allows pilots to decide which audio sources they want to hear through the ProFlight Series 2 and in which combination. Two options for audio prioritization may be selected: Mute or Mix.

The Mute setting: When the switch is in the top position and an intercom signal is detected, *Bluetooth* audio is muted.

The Mix setting: When the switch is in the middle position and an intercom signal is detected, *Bluetooth* audio is mixed with the intercom audio.

How does customizable audio prioritization work?	The control module has three possible user-defined prioritization states: **Mixed audio position:** The intercom signal will be mixed with the *Bluetooth* input signal. **Muted audio position:** The *Bluetooth* auxiliary input signal will be muted only when an ICS signal is present. **OFF:** *Bluetooth* audio sources turned off for sterile cockpit operations. Note: When a *Bluetooth* call is present, the audio from the call will always mix with the ICS signal. The *Bluetooth* function is always disabled in the passive mode and when the battery life indicator light is red.
MICROPHONE FAQ	
What kind of microphone does the Bose ProFlight Series 2 have?	The ProFlight Series 2 uses a noise cancelling electret microphone (often called a high-impedance microphone), typical on most commercial aircraft. It is optimized to reject far-field noise and improve performance with "hot mic" systems.
POWER/BATTERY FAQ	
What is the battery life of the Bose ProFlight Series 2?	Using two AA alkaline batteries, the ProFlight Series 2 will operate for at least 45 hours of flying in typical aircraft noise. With continuous operation of the *Bluetooth*® function, battery life will be at least 25 hours. As always, battery life varies with the type of battery, the noise environment and features used. The headset's battery life indicator light alerts the user when batteries should be replaced.
Can I use rechargeable batteries?	Rechargeable batteries are discouraged because your flying-time battery life will be reduced from the 45-hour life, depending on the type of battery chemistry used. Rechargeable batteries also alter the accuracy of the battery status indicator light, so that when the light changes to amber, you will have less than the usual eight hours of flying time remaining that you can expect with non-rechargeable AA alkaline batteries.
Can I use lithium-ion batteries?	Lithium-ion batteries should not be used due to their typically higher voltage.
How are the batteries installed?	The two AA batteries fit lengthwise within the bottom of the control module. The battery compartment is easily accessed by pushing down and, at the same time, sliding the cover toward the headset. After the cover has cleared the detent, lift the cover into a vertical position to place the batteries.
What is flexible power?	Flexible power is available for headset configurations that allow aircraft power. When disconnected, the flexible power feature lets the headset switch seamlessly from aircraft power to battery power, so users experience no interruption when the headset is plugged into or unplugged from a source of power. 6 pin LEMO, 7 pin and 5 pin XLR connectors have this function, and also feature auto-on. The user may easily change from an aircraft-powered configuration to a battery-powered configuration using adapters available from Bose or third-party manufacturers.

How does the auto-on feature work?	Headsets that can use aircraft power (6 pin, 7 pin and 5 pin XLR) will automatically turn on when the aircraft power is present. A switch inside the control module battery compartment can configure this feature based on user preference.
How does the automatic shutoff feature work?	The automatic shutoff feature in your ProFlight Series 2 detects when the headset is not in use and shuts it off after several minutes to preserve battery power. The exact time it takes to shut off varies and can range between 6 and 45 minutes of inactivity.
Can I use the ProFlight Series 2 to listen to audio from a *Bluetooth* device even when I am unplugged from the intercom?	**Yes.** As long as the headset is turned on, audio can be played through the *Bluetooth* connection. However, *Bluetooth* audio will not play when the headset has less than two hours of battery life left in the headset (on *Bluetooth*-equipped models).
How difficult is it to install a flex-powered version, and how much would it cost?	This is dependent upon aircraft type desired plug location and overall system setup preferences. It could take as few as 30 minutes or several hours to install. The system consists of just six soldered wires: two audio, two microphone, a ground and a power wire. Installing near the existing phone and mic jacks facilitates the installation as four of the six wires can be installed directly to the back of the existing jacks. This also allows existing jacks to be used with conventional aviation headsets. The cost of the installation depends on the hourly rate of the avionics professional you select to perform the job.
Why is the installed/aircraft-powered version of the control module the same size as the battery-powered control module?	Installed/Aircraft-powered versions of the ProFlight Series 2 contain a feature we call flexible power circuitry. Headsets with the flexible power circuitry can be seamlessly switched between aircraft power and batteries. This allows users to retain the flexibility and additional options of using batteries or an optional adapter cable. The adapter cable is useful if you fly in other aircraft without an aircraft-powered connector, or if you want to disconnect from the aircraft and enjoy a quiet flight with active noise reduction. Because batteries take up to 70% of the control module space, the modules were designed to have the same size.
Do the aircraft-powered versions (6 pin, 7 pin and 5 pin XLR) of the headset require batteries for any of the functions?	**No.** These versions of the ProFlight Series 2 do not require batteries for any function when connected to the aircraft. However, if you keep batteries in the module, you will be able to seamlessly continue use of the headset when it is disconnected from the aircraft power. For example, you could make a private phone call with the *Bluetooth*® version of the headset by disconnecting from the panel. It also gives you the capability to use a small adapter cable to fly in other aircraft instead of purchasing a new cable with different connectors.
Can you dim the LED lights on the control module?	**Yes.** The lights can be dimmed by pressing the on/off button twice quickly. You can reset the lights to normal mode by pressing the on/off button twice quickly. The headset defaults to normal setting when the headset is powered off.

Why does the power LED have three colors, and what do they mean?

The tri-color power LED provides continuous status indication of battery health and tells the pilot the remaining battery life at a glance. In addition, the tri-color status LED allows pilots to extract maximum energy from a set of AA batteries while enabling proactive battery replacements.

	Power LED		
Indicator color	**Power source**	**Type of light**	**Indicates**
Green	Aircraft	Slow flashing	Power ON
Green	Battery	Flashing	Power ON and batteries good
Amber	Battery	Fast flashing	Power ON, but batteries low (8 hours or less remaining)
Red	Battery	Faster flashing	Power ON, but batteries very low (2 hours or less remaining)
Off	None	None	Power OFF or batteries depleted

PRICING FAQ

What is the price of the ProFlight Series 2?

The ProFlight Series 2 is available directly from Bose for $1045.95 for the *Bluetooth* version and $995.95 for the non-*Bluetooth* version. The headset and the cables can be purchased separately.

Why does the ProFlight Series 2 cost so much more than the competition?

The ProFlight Series 2 is the result of years of research by some of the top engineers in the company. It is supported by the resources of a world-class company and it incorporates proprietary technology offered only by Bose. Bose believes the ProFlight Series 2 is the only aviation headset that has the unique mix of features to deliver performance worthy of the price. However, only you can decide the value. We encourage you to compare our new headset with competitive products and judge for yourself. We offer a 30-day flight trial to allow you to experience the ProFlight Series 2 in your own flying environment.

Do you have a trade-in program for existing Bose aviation headsets?

From time to time, there may be a limited-time offer for select headsets. Please contact Bose for detailed information.

How much are the additional cable accessories?

Cables are available for $295.95 USD ($245.95 USD for non-*Bluetooth*).

Can I upgrade my current ProFlight Aviation Headset to a ProFlight Series 2?

Yes. The original ProFlight headset can accept the ProFlight Series 2 cable. Contact your Bose sales representative for details. Not all features of ProFlight Series 2 will be available in this configuration. Refer to the table below for more details.

Is it possible to use a ProFlight Series 2 cable on the original ProFlight Aviation Headset?

Yes. The ProFlight Series 2 cable is compatible with the original models. In addition, it is also possible to attach a ProFlight Series 2 headset assembly to an original ProFlight cable. Some features will change depending upon the version of headset and cable used. See the table below:

ProFlight headset and cable feature matrix		
	Original ProFlight cable	**ProFlight Series 2 cable**
Original ProFlight headset	Original ProFlight model Original tap control for talk-through communication Original ANR Original mic setup *Bluetooth*®-only version	Updated tap control for talk-through communication Original ANR Thinner cable Enhanced mic windscreen positioning (wings) *Bluetooth*/Non-*Bluetooth* versions Updated cable clip
ProFlight Series 2 headset	Original tap control for talk-through communication Revised ANR modes Original mic setup *Bluetooth*-only controller	Updated tap control for talk-through communication Revised ANR modes Thinner cable Enhanced mic windscreen positioning (wings) *Bluetooth*/Non-*Bluetooth* versions Updated cable clip

How can I determine if I have the original ProFlight Aviation Headset or ProFlight Series 2?

For the headset assembly, remove the right headband pad and provide the serial number underneath it to customer service. For the cables, turn on the headset, turn on tap control and tap an earbud while observing the control module LEDs. If the LEDs blink in unison with tapping, it is a ProFlight Series 2 cable. The original cables will not blink in conjunction with tapping.

QUALITY/SERVICE FAQ

Which Bose ProFlight Series 2 replacement items or accessories are available for purchase?

Bose offers the following accessories for your ProFlight Series 2:

- Additional control module cable
- Cable options include XLR 5, XLR 7*, 6 pin LEMO, Dual plug
- Side pad cushion kit (contains two cushions)
- Eartip replacement kit that contains two pair per size
- Carrying case
- Microphone windscreen
- Clothing clip
- Control module lanyard
- 6 pin install to Dual G/A cable adapter
- 6 pin install to U174 cable adapter
- Aircraft panel connector installation kit
- Aircraft panel installation kit cover plate
- Termination cap

* Note: If interested in purchasing the 7 pin XLR, please contact Bose directly.

The Bose ProFlight Series 2 seems very light, but that must mean it is not durable. Can it withstand the rigors of aviation?

The ProFlight Series 2 has been designed as a total system. It delivers breakthrough performance and withstands the rigors of aviation use. High-performance engineering materials were used in the design, carefully chosen for function and durability. The headset has been tested to FAA requirements for headsets and is certified for manufacture under TSO C139a approval. It also has been tested to meet some additional requirements based on our experience designing headsets for the military. The cables were designed and tested to exceed the TSO-required 25,000-cycle flex life.

Note that the headset is not intended for use as part of a crash protection system and has not been certified for crash protection. Dismantling, reassembly or modification of the headset, or any part, for use in a helmet or other crash protection system could result in severe bodily injury and such unauthorized use will void the limited product warranty.

The headset seems fragile. What sort of wear should I expect from the components?	The ProFlight Series 2 has been designed to withstand the rigors of aviation use. The high-performance engineering materials used in the design were carefully chosen for function and durability. Side pad cushions, microphone windscreen, earbud tips and headband cushion are all consumable items and should be replaced periodically. We suggest that you replace the side pad and microphone windscreen yearly or more often if excess wear is noticed.
Can I interchange the control modules from my A20 with the ProFlight Series 2?	**No.** The control module can only be used for the product that it is built for.
Can I use any of the parts or accessories from other Bose products Headset X (cushions, mic windscreens, etc.) with the ProFlight Series 2?	**No.** Although it may be possible to force some of the cushions and parts onto the ProFlight Series 2, they have not been designed or implemented for this product. You should only use parts designed for use on the ProFlight headset.
What does the five-year warranty cover?	The ProFlight Series 2 warranty is five years from the date of purchase, covering defects in material and workmanship with parts, labor and one-way return shipping from Bose, all provided at no charge to the customer. Bose maintains a dedicated FAA-Certified Repair Station to support all versions of Bose aviation headsets.
I noticed that the ProFlight Series 2 now offers a 5-year warranty term. Will the warranty term for my original ProFlight change?	Yes, the warranty term extension from three years to five years is effective for both the original ProFlight as well as ProFlight Series 2.
How do you clean eartips and mesh of earbuds?	This deep-cleaning method is to be used to resolve some audio issues. To deep clean the earbuds, follow these steps: 1. Remove the tips from the earbuds. 2. Apply a small amount of hydrogen peroxide (3% concentration only) to the mesh surface of the earbud using a soft cloth or tissue (be careful not to allow excess liquid to enter the open port on the earbud). 3. Let sit for 5 minutes to allow wax to soften . 4. Wet a soft-bristled toothbrush with hydrogen peroxide (3% concentration only). 5. Gently scrub the mesh surface to loosen and remove the wax without allowing excess hydrogen peroxide to enter the open port on the earbud. 6. After mesh surface is clean, gently shake out any excess liquid and debris. 7. Dry earbud with a soft cloth.

How should I perform preventive maintenance?	To clean the **eartips**, follow these steps: 1 Remove the tips from the earbuds. 2. Wash eartips with mild soap and rinse with water. 3. Dry eartips with a soft cloth. 4. Allow the eartips to completely dry before reattaching them to the earbuds. To clean the **earbuds**, follow these steps: 1. Remove the tips from the earbuds. 2. Lightly brush mesh screens with a soft dry cloth (be careful not to push cerumen (earwax) into the mesh surface or porthole). Note: It is recommended that protective gloves be worn when using hydrogen peroxide.

CERTIFICATION/TSO FAQ

What is TSO, and why is it important?	A Technical Standard Order (TSO) is a minimum performance standard for specified materials, parts and appliances used on civil aircraft. When a company is authorized to manufacture a material, part or appliance to a TSO standard, this is referred to as TSO authorization. When a company receives a TSO authorization, it is assured that the product meets these minimums in both design and production. Bose Corporation meets all, and exceeds many, TSO requirements. Receiving a TSO authorization is not an approval to install and use the authorized article in the aircraft.
How do I prove to a check pilot that the product is TSO certified?	Markings on or inside the control module and under the side pad of the headset indicate TSO certification.
What is the Bose position on the InFO document from the FAA on noise cancelling headsets?	Bose supports the recommendation in the InFO memo that operators should thoroughly evaluate headsets for performance in their own aircraft. Each aircraft type has unique acoustic qualities, and Bose strongly believes the best way to evaluate performance is through real-world testing. The ProFlight Series 2 meets or exceeds all FAA TSO requirements for pilot headsets and has been thoroughly tested in many different aircraft. Civilian and military pilots have accumulated millions of flight hours during the 25 plus years our products have been in the field.
Do I have to get special permission to use this headset on my airline? Is an STC required?	The requirements put in place by airlines vary widely. Some allow the pilots to use a headset of their choice, while others restrict use to either a list of products or only certain products.
Have you tested ProFlight Series 2 with different pressure/O^2 masks?	**Yes.** Several different pressure masks have been tested and used with the headset. It is possible to don the headset and use the headset with the pressure masks.

Is ProFlight Series 2 Airbus/Boeing/Embraer/etc. certified? Why or why not?	The term "certified" can take on many meanings. It is best to review with the appropriate OEM manager and business development manager for the aircraft or airline in question to get the latest status. Keep in mind, the headset is TSO certified and has been tested on many different aircraft. Approval to use the headset on any specific aircraft can vary by the type of operation the headset will be used in, by country and even by the aircraft certification organizations. Depending on your needs, Bose can assist in getting the appropriate approvals you may require.
How can you be sure that the pilot always has his own earbuds available?	It's a good idea to have extra sets of earbuds available to pilots or stored in aircraft. If extra tips are stored on aircraft where multiple pilots will use the headset, it is good to plan on making medium tips available as this size should fit the majority of the pilot population.
Why is the down cable so thick? Can't you make it more pliable?	You asked, and we listened. The ProFlight Series 2 cable is thinner and more flexible than the original ProFlight cable.
Does it have an audio output limiter like Sennheiser's "peak level protection"? Why not?	The headset is required by TSO to output up to 110dB. All aviation headsets we have tested to date provide this level of output.
How is the ear pressure equalization, including while used through several flight phases?	These earbuds don't create a strong seal and in fact, even with a less-than-perfect fit, the earbuds provide great noise reduction.

BOSE A20 AVIATION HEADSET QUESTIONS

Is the Bose A20 Aviation Headset still available?	**Yes.** The ProFlight Series 2 did not replace the A20 Aviation Headset. It is designed to meet the unique needs of pilots and crew who fly pressurized and crewed aircraft, which are typically less noisy.
How does the ProFlight Series 2 compare to the A20 Aviation Headset in terms of noise reduction?	The ProFlight Series 2 does not have as much total noise reduction as the A20 Aviation Headset.

What are the advantages of the ProFlight Series 2 vs. the A20 Aviation Headset (or the Bose Aviation Headset X, Aviation Headset Series I, Aviation Headset Series II, or pre-2015 A20 Aviation Headset)?

The ProFlight Series 2 is our most advanced aviation headset yet.

Compared to the Bose A20 Aviation Headset, the ProFlight Series 2 has:

- A new level of comfort achieved through choice of materials, redistribution of weight throughout the headset and a purposeful in-ear design.
- Digital active noise reduction with multiple modes of active noise cancellation.
- A microphone and cable that are side-swappable without tools. Storage in a smaller carrying case.

ProFlight Series 2 compared to Bose Aviation Headset Series I and II:

- Weighs significantly less – 4.5 ounces (128 grams) on head and 9.7 ounces (275 grams) total vs. 18 ounces (510 grams) and is designed for greater comfort, with low clamping force (275 grams of clamping force on average heads).
- At least 45 hours of battery life from two AA batteries (Series I had a large NICAD system or large plug installation for power; Series II had a six AA battery pack or small dime-size installation).
- Storage in a more compact space/bag.
- Less total noise cancellation as compared to the Bose A20.

2015 A20 Aviation Headset added features (note that these features are not present in all versions):

- A2DP: streaming *Bluetooth*® audio.
- Auto-on (select models using aircraft power).
- High-performance microphone.
- Coil cord option.

How do I know which previous headset version I have?

Aviation Headset Series I has the on/off switch and volume control located on the separate control module. Some Series I headsets have clear windows on the ear cups allowing a view of the ear cup electronics.

Aviation Headset Series II headsets are distinguished by the dual volume controls and on/off switch located on the headset itself. This is located behind the left arm board.

Aviation Headset X can be identified by the magnesium headband and domed, smooth ear cups with a single port in the middle of the cups. The modules (portable and installed) have a power on/off button and dual volume controls.

The A20 Aviation Headset can be identified by looking for the Mute/Mix/Off switch position labels on the control module. Those labels will indicate that the A20 headset is the most current version.

The ear cups have two separate ports on each ear cup.

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