## The Bose® commitment to you.

For as long as you own your headset, we're here to provide technical advice, installation information, and warranty and repair service.

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**Bose** was the first to introduce active noise reducing headsets to aviation more than 20 years ago, forever changing the way pilots fly. Now, the new Bose® A20™ Aviation Headset introduces an entirely new standard.

This headset has been engineered for significantly increased noise reduction in even louder environments. With an improved degree of comfort you'll appreciate, and the clear audio you expect from Bose.

The A20 Aviation Headset offers you new features, too – including a *Bluetooth®* communications interface and an auxiliary audio input for your portable GPS, traffic warning system or other audio devices. We invite you to experience these features all firsthand in your own choice of aircraft. We believe that no other aviation headset delivers this advanced combination of noise reduction, comfort and communications performance.

#### THE ADVANTAGES:

- 1\_Significantly greater noise reduction.
- 2\_Improved level of comfort.
- 3\_Clear audio.
- 4\_Bluetooth® communications interface.
- 5\_Auxiliary audio input.
- 6\_User-defined audio prioritization.
- 7\_Automatic shutoff.
- 8 Meets or exceeds all TSO standards.
- 9 Made in the U.S.A.

OUR BEST NOISE REDUCTION AND COMFORT EVER.

Bose engineers have discovered a new approach to sense more of the noise in any cockpit, constantly measuring it with microphones both inside and outside each earcup. Sophisticated electronics work separately with each microphone signal to compare the noise with the sound you want to hear. Then, instant by instant, the noise is reduced with a more accurate opposite "cancelling" signal.

At the same time, our new proprietary ear cushions help provide improved passive noise reduction and a more comfortable fit. An exclusive design allows more room for your ears without increasing earcup size. Distribution of weight throughout the headset and choice of materials adds to the comfort, and the A20<sup>TM</sup> Aviation Headset also has one-third less clamping force than most others. You can wear this headset for hours – and maybe even forget you have it on.

The headset's increased noise reduction combines with Bose® sound quality to create the audio experience you really want when you fly – improved clarity for your communications. There's also a new *Bluetooth®* communications interface with integrated sidetone technology. This Bose exclusive technology lets you hear your own voice more naturally when talking on your *Bluetooth* mobile phone, even when not connected to your intercom.

# CLEAR AUDIO PLUS NEW COMMUNICATION CAPABILITIES.



Easily connects to your GPS or wirelessly to your phone.

Bose introduced the world's first noise cancelling headset in 1986 – on the historic around-the-world flight of the experimental Voyager aircraft. We're proud of that accomplishment, and even prouder of the fact that we continue to lead the field.

Our aviation headset has topped Professional Pilot magazine's annual preference survey for the past nine years – every year the magazine has held it. The Aviation Consumer named our previous model the "Best ANR Headset" and concluded: "On a pure performance and preference basis, there's the Bose Headset X and then there's everything else."

Today, the new and exclusive Bose® technologies in our **A20™ Aviation Headset** build on that legacy, and take acoustic noise reducing headsets a significant step further. Unwanted noise is reduced more accurately across a wider range of frequencies, with greater comfort and expanded communications capabilities. The end result for you is a better flight experience.

## CONFIGURATION INFORMATION

The A20<sup>™</sup> Aviation Headset comes in several configurations, allowing you to adapt it to your preferences and aircraft. Each complete headset comes with a smooth glide boom microphone and an inline control module featuring auxiliary audio input, audio prioritization left/right volume control, on/off switch and optional Bluetooth® communications capability. In-box accessories include two AA batteries, a male-to-male 3.5mm aux-in adapter cable and a carrying case. Because of the modular nature of the A20 Aviation Headset, different cable configurations may be purchased separately and added easily with no need for adapter plugs.

### Dual General Aviation (G/A) plug

Complete headset model with Bluetooth module Complete headset model with conventional module

Connects the headset to the aircraft's ICS via a dual plug, and is not powered by the aircraft. Two alkaline AA batteries provide a minimum of 40 hours of operation while flying. Smart shutoff preserves battery life when the headset is not in use. Specify *Bluetooth* communications module or conventional module.

#### Cables:

Bluetooth Conventional

#### Flex power 6-pin connector

Complete headset model with Bluetooth module Complete headset model with conventional module

Connects the headset to the aircraft via a 6-pin connector, and is powered directly from the aircraft. Two AA alkaline batteries also can be used with the optional 6-Pin Connector to Dual G/A Plug Cable Adapter to provide a new level of flexibility (see Accessories section on facing page). When disconnected, the flexible power feature lets the headset switch seamlessly from aircraft power to battery power, so users maintain the same experience whether the headset is plugged into or unplugged from the aircraft. Specify *Bluetooth* communications module or conventional module.

#### Cables:

Bluetooth Conventional

## Battery-powered helicopter/military

U174 single plug with electret mic and *Bluetooth* communications interface. Smart shutoff preserves battery life.

## Choose from the following microphone options:

#### Dynamic mic

Low impedance – 5 ohm and 150 ohm. Bluetooth not available for dynamic mic variants.

#### Electret mic

High impedance – for most U.S. general aviation aircraft.

## **ACCESSORIES**

#### ADDITIONAL CONTROL MODULE CABLE

- Specify *Bluetooth®* communications module or conventional module
- Specify connector type: dual G/A, 6-pin install, 5-pin XLR or U174

#### 6-PIN CONNECTOR TO DUAL G/A PLUG CABLE ADAPTER

Allows a headset with a 6-pin connector to connect into a standard dual G/A plug for additional connection flexibility.

#### REPLACEMENT EAR CUSHION KIT

Supple ear cushions. One pair.

#### REPLACEMENT HEADBAND CUSHION

Sheepskin headband cushion for comfortable on-head fit.

#### REPLACEMENT MICROPHONE WINDSCREEN

Windscreen muff to protect the boom microphone element.

#### AIRCRAFT PANEL CONNECTOR INSTALLATION KIT

Wire harness for the 6-pin connector configuration.

#### SERVICE KIT

Includes replacement ear cushions, microphone windscreen and headband cushion.

#### ALTITUDE

15,000 feet maximum for full noise reduction

#### VOLTAGE

Battery power: 3 volts (40+ hours from

2 AA alkaline batteries)

Aircraft power: 10 to 32 VDC

#### CURRENT

Operating: 25 mA in typical aircraft noise

#### FUSE/BREAKER RECOMMENDED

1/4-amp, fast-blow fuse (AGC 1/4-amp fuse) or 1/2-amp circuit breaker

#### IMPEDANCE

Monaural mode: 160 ohms ON and OFF Stereo mode: 320 ohms ON and OFF

#### WEIGHT

12 ounces

#### MICROPHONE (ELECTRET)

Bias required: 8 to 16 VDC through 220 to

2200 ohms

Sensitivity: Varies depending on bias and AC radio input impedance. Typical output is 600 mV at 114 dB SPL. To assure proper modulation of the radio, it is recommended that an avionics technician adjust its input to match the output of the microphone.

#### MICROPHONE (DYNAMIC)

Impedence: 5 ohms

TECHNICAL INFORMATION

Sensitivity: Equivalent to M-87/M-101

## BLUETOOTH® COMMUNICATIONS INTERFACE

Hands-free profile, Bluetooth 2.1

#### **BLUETOOTH TECHNOLOGY QD ID**

Bose® A20™ Aviation Headset: B016487

#### FAA TECHNICAL STANDARDS ORDER (TSO)

Bose A20 Aviation Headset, its interface, cables and electret boom microphone are certified to the Federal Aviation Administration's Technical Standard Order number TSO-C139. The headset system has been designed to function per headset performance requirements described in RTCA/DO-214 and to withstand exposure to the environmental conditions described within RTCA/DO-160 F as well as several other environmental tests including those for humidity, salt spray, temperature cycle and shock. This enables long life and durability in the real world.

5-year limited warranty
Made in the U.S.A.