

# *B-Flat*

# *Wallspeaker*

By Descant

## Owner's Manual

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**Audio Concepts, Inc.**

571 West Avenue N. West Salem, WI 54669  
Phone: (608) 786-4729 Fax:(608) 786-4710  
Website: [www.audioc.com](http://www.audioc.com) Email: [service@audioc.com](mailto:service@audioc.com)

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Sound that Satisfies...

## *Audio Concepts, Inc.* **Our Guarantee and Warranty**

### **Satisfaction Guaranteed:**

We're sure you're going to love your new Audio Concepts, Inc. (ACI) products! In the unlikely event that you are not satisfied, please contact us within **30 days** of receipt of your ACI products for a hassle-free return.

Simply follow these procedures:

1. **Return Authorization:** Call us at (608) 786-4729 or email [service@audioc.com](mailto:service@audioc.com), within 30 days of receipt of your ACI products for a return authorization number. Boldly mark the return authorization number on the outside of the box. Include a brief note stating your name, address and daytime telephone number, along with a short description why the products are being returned.
2. **Returning:** We request that you return the ACI products to us in their original packaging and include packaging materials, manuals, etc. Ship by the most economical means (preferably UPS) and insure the products for the invoice purchase price. The customer is responsible for return shipping. *Please note: ACI can not accept C.O.D. returns.*
3. **Credit:** Upon receipt and inspection, we will issue a refund for the invoice purchase price and invoiced UPS Ground service only. Please note this return policy is in effect only if the ACI products are in new condition, in their original packaging, without drilled holes, disassembled or any other modifications.

### *Speaker Manufacture's Warranty:*

For **five years** from receipt, Audio Concepts, Inc. will, at its option, repair or replace factory defective components. (Subwoofer amplifiers are **three years**). This warranty excludes products that have been abused, modified, or disassembled in any way. This warranty does not apply to products, which have been damaged in shipping. Audio Concepts, Inc. liability is limited only to the replacement of defective parts. No other liabilities or obligations are expressed or implied.

The ACI Warranty is fully transferable from the original owner to a secondary owner provided that the original owner notifies ACI, by phone call or by filling out the on-line form: [www.audioc.com](http://www.audioc.com)

No warranty will be transferred absent this notification.

For warranty work, simply follow these procedures:

1. **Return Authorization:** Call us at (608) 786-4729 or email [service@audioc.com](mailto:service@audioc.com) for a return authorization number. Boldly mark the return authorization number on the outside of the box. Include a brief note with your name, address and a daytime telephone number, along with a short description why the product(s) is being returned.
2. **Returning:** Carefully repack defective ACI merchandise in their original packaging. Ship by the best means, (preferably UPS or Fed Ex), and insure the products for their full retail value. The customer is responsible for return shipping. Please note: ACI can not accept COD or Freight Collect returns.
3. **Repair or Replacement:** Audio Concepts, Inc. will inspect and determine the cause of failure and will pay return shipping on the defective goods replaced or repaired. If it is found that the product was in any way abused, modified, or disassembled, you will be contacted with an estimate for repair charges.

Please ship any returns to the following address:  
**Audio Concepts, Inc., 571 West Avenue N. (608) 786-4729**

## IMPORTANT NOTICE

All new speakers require a minimum of 60 hours break-in-time before they sound the way they are supposed to. A speaker's performance improves significantly once broken in. It is critical that you have at least 60 hours on your speakers before you evaluate them. Don't worry if your speakers do not sound perfect the first time you play them. This is normal until they are broken in. If you are having difficulty getting enough hours on your speakers and your 30 day return privilege is getting near, call us. We will work with you. Please give us the courtesy of breaking the speakers in before you determine they don't sound right.

Many of our customers break their speakers in by:

- A) Leaving them on at moderate listening levels when they are not home.
- B) Leaving them on at moderate listening levels while they sleep.
- C) Running pink noise through them.

These methods are not convenient for everyone and we understand this. But please know that you are not giving yourself, your speakers or us a fair chance if you do not break them in before critical evaluation.

THANK YOU!

## ***B-Flat Wallspeaker by Descant***

Thank you for your order! Audio Concepts, Inc. is proud of the B-Flat Wallspeaker series by Descant. The B-Flat Wallspeakers offer true high-fidelity stereo performance at a bargain price! The B-Flat Wallspeaker has an exceptionally natural balance that makes listening to any music or soundtrack an enjoyable experience. These fine speakers will provide you with many years of listening pleasure while leaving your living space uncluttered. Many music lovers are installing them throughout their homes. The B-Flat Wallspeakers are an excellent choice for video systems requiring four to seven speakers. The B-Flat Wallspeakers also make a fine outdoor speaker if installed in a relatively protected location such as under the eaves or on a porch. What other speaker is so flexible that it also makes a great rear deck speaker for cars or a great cabin speaker for boats? Don't let the very reasonable price fool you, the B-Flat Wallspeakers are a true high-fidelity product!

We have done our best to make the B-Flat Wallspeaker instructions simple yet complete. Please take time to go over the manual thoroughly before installing your speakers. Often it helps to look at the manual and parts together. We've tried to provide you with the information you'll need to gain the most enjoyment from your speakers. Should you have questions about the use of your speakers, not answered in the manual, please E-mail or call. We guarantee your satisfaction with the B-Flat Wallspeakers. If you aren't satisfied, return them within 30 days for a prompt refund. (Please see warranty sheet for details.)

### ***Specifications:***

**Frequency response:** 60-20kHz  $\pm$  3db wall mounted

**Nominal Impedance:** 8 ohms, minimum impedance 6 ohms

**Sensitivity:** 89db 1 watt/ 1 meter

**Recommended RMS Power:** 20 to 80 watts per channel

**Tweeter:** 1" textile dome with ferro-fluid

**Bass-mid:** 6-1/2" polypropylene cone, rubber surround

**Dimensions:** 12" tall, 8-5/8" wide, and 3" deep, mounts in 2x4 wall

**Cutout dimensions:** 10-3/4" by 7-3/8"

**Grill:** White metal

**Features:** White, may be painted any color to match your decor

**Recommended accessories:** ACI subwoofer

## ***About the B-Flat Wallspeakers by Descant***

The B-Flat Wallspeaker may be successfully installed in drywall, wood or paneled walls, with no special construction required. The B-Flat Wallspeaker may be mounted vertically or horizontally. The best imaging will be obtained with the B-Flat Wallspeaker installed vertically. Recommended mounting height is three to six feet above the floor. The B-Flat Wallspeaker may be ceiling mounted, but there will be a loss of some bass response if used in a drop type ceiling. Drywall ceilings will yield excellent bass response.

*The B-Flat Wallspeaker requires a wall or ceiling mounting to work properly. Listening to the B-Flat without mounting will yield a sound without bass. This is true of any speaker. The same would be true if you were to remove the front of a conventional set of speakers and attempt to play them without the box. The B-Flat Wallspeaker must be properly mounted when auditioned.*

Audio Concepts, Inc. speakers are designed to be the most cost-effective systems available. By purchasing factory direct you eliminate costly markups. The B-Flat Wallspeakers have been carefully compared to wallspeakers costing \$299 to over \$1000 per pair. You will find that your installed B-Flat Wallspeakers are among the finest architectural type speakers available at any price!

The B-Flat Wallspeaker is suitable for use in any music system. It is meant for use when space is at a premium but accurate musical reproduction is a must. The space within the wall or ceiling acts as a large baffle which improves bass response. This wall mounting actually yields bass that is comparable in power to a conventional system using an 8" woofer! The flat mounting minimizes diffraction and coloration.

By using an appropriate switching box you may have quality music reproduction throughout your home or office. Wire may be run in the wall or along the base molding.

## ***Using Your Speakers***

If the rest of your system does not work properly or is not correctly connected you will not get the best performance from your system. To eliminate problems we recommend the following:

- Use the finest associated components you can afford. CD and DVD players, pre-amps, amplifiers, (receivers) and cables all have profound impact on the sound of your system. Accurate speakers let more detail through. You will hear more of the beauty of the music, but flaws in your system and or source material may be more obvious.  
Any good audio system is made up of matched components. You wouldn't use bargain recap tires on a new Porsche, and you shouldn't use inferior components with a high quality speaker. Your B-Flat Wallspeakers perform like speakers

costing two to four times their price. Keep this in mind when selecting the rest of your system.

Your B-Flat Wallspeakers will work in systems with as little as 20-40 watts per channel. But for optimum sound we recommend high-quality amplification of 40-80 watts per channel.

- Know your source material. People often blame their audio gear for poor recordings. A great number of popular recordings are of inferior sound quality. Unfortunately this applies to records, tapes and CDs. Commonly poor recordings are rolled off in the low bass, and harsh and constricted in mids and highs. Good stereo image is rare. Many recordings are still done on monitor speakers that are grossly inaccurate. Consider that some producers still mix recordings to sound best on cheap table and car radios! This doesn't mean you can't enjoy these recordings, but you should try a few of the best audiophile recordings just to see how terrific your system can be when fed a good signal.
- Your B-Flat Wallspeakers will sound their best when they are mounted at approximately your ear level. Best performance will be attained if they are mounted on flat surface with as few obstructions as possible. For the optimum stereo image: ***If*** the B-Flat Wallspeaker is to be mounted below ear level place the tweeter at the top. ***If*** the B-Flat Wallspeaker is to be mounted above ear level place the tweeter on the bottom. This placement is not critical for most applications but will insure the absolute best balance and stereo image.

### ***Avoiding Damage***

ACI speakers are designed for the purpose of accurate reproduction of music in the home. We do our best to make our speakers rugged and reliable. However, ***any*** speaker or system may be damaged under certain conditions:

- Excessive power, particularly at certain frequencies or for prolonged periods of time
- Excessive distortion often caused by under-powered amplifiers or receivers
- Defective amplification
- Excessive subsonic energy

Our systems are tested at high volume levels with a variety of amplifiers and receivers before a design is approved. With many years of testing, we know it is virtually impossible to damage a component without the system first giving audible warning in the form of distortion. We also know that true factory defects are extremely rare, less than one in 10,000 drivers. Here are some considerations to keep in mind to avoid damaging your drivers:

-Even though a system may be rated for 100 watts or more it is possible to damage it with a low power receiver. When an amplifier runs out of power, it "clips". This clipping produces large amounts of distortion, which sends excessive energy particularly to the midrange and tweeter. This clipping distortion accounts for more

than 75% of all tweeter failures. How do you know if the amplifier is clipping? Volume knob placement does NOT indicate much. Some receivers reach full output well before 12:00 on the dial. Use of the loudness button, bass boost and treble boost can all drive the receiver and then the speaker into distortion at fairly low levels.

-Many of today's recordings including CDs and DVDs contain extremely powerful low bass. This low bass can easily drive woofers into over-excursion or cause the amplifier to run out of power and clip, causing tweeter damage.

**You can protect your speakers by following a couple of very simple guidelines:**

-Distortion is a warning sign that should not be ignored; if it sounds distorted, ***turn it down.***

-Be careful not to over-boost frequencies with tone controls or equalizers. If you must boost certain frequencies keep the boost level low and monitor the system carefully.

-Beware of the "party damage epidemic". Speakers are more often damaged during parties. All those bodies soak up sound, requiring more output to sound as loud, bass and treble controls are sometimes cracked up and nobody is listening for distortion.

-Watch out for energy put out by the amplifier in the range below 20Hz, which is not music. Examples include record warps, DC current and subsonic noise in the recording. These signals can take up a lot of amplifier power which means the amplifier runs out of steam very early. These signals can also overload a speaker even though you can't hear them. If you have ever watched a cone "flap" you know just what we mean. Unusually powerful low organ or synthesizer notes may cause an otherwise excellent woofer to bottom out at relatively low input levels.

-Keep an eye out for excessive cone movement that is not producing music. Find the source of the problem and eliminate it, play at low levels, or use a subsonic filter (usually in your pre-amp) which will filter out energy below 20Hz.

*In more than 24 years of daily evaluation of all types of speakers on everything from 10 to 1000 watts with all kinds of music, we have rarely damaged a driver without first hearing audible distortion. If it sounds bad, turn it down and you will never damage a speaker.*

## ***Hookup***

Your B-Flat Wallspeakers are furnished with spring loaded input terminals for attaching to your wiring. It is important that the positive and negative leads do not touch. Speaker wire runs should be kept as short as possible. The use of quality wire such as DH Labs T-14 is recommended. You may choose to run your wires permanently throughout your home or you may install our 5-Way Gold Post Cup near your baseboard molding.

Make sure you hookup the speaker in the correct polarity. The red (positive) terminal on your amp should hook up to the red (positive) input and the black (negative) terminal should be connected to the black (negative) input. Keep this the same for both speakers in a stereo pair. A way to check the correct polarity is to play music with a lot of bass. The correct hookup will yield the greatest amount of bass.

## ***Placing the Speakers in Your Room***

The placement of your B-Flat Wallspeakers has a significant impact on the sound. Because all of our rooms and tastes are different, it is impossible to specify a “correct” placement. We suggest a separation of six to eight feet if your primary listening position is more than eight feet away. If you listen close up, such as a small office, mount the speakers closer together. The carefully designed crossover of the B-Flat Wallspeaker allows broader, more accurate stereo coverage than less sophisticated wallspeaker designs.

## ***Placement with Subwoofer Systems***

Used on their own, the B-Flat Wallspeakers have excellent bass. For even deeper and more powerful bass, subwoofer(s) may be added. The Titan or Titan II Powered Subwoofer or Quake Powered Subwoofer is an excellent match for use with the B-Flat Wallspeakers.

- For the most coherent image, the subwoofer(s) should usually be very close to the B-Flat Wallspeakers. The distance from the listener to the drivers should be similar. The subwoofer(s) should be set along the same wall the B-Flat Wallspeakers are mounted in. See your subwoofer manual for details, however often the best performance will be with the subwoofer placed in a room corner.

Remember that it is what sounds the best to you that counts!

## ***Installation Instructions***

The following tools will be required:

Tape measure, pliers, Phillips head screwdriver and a jigsaw or handsaw.

### *Parts List:*

<u>Quantity</u>	<u>Description</u>
2	Assembled acoustic panels with drivers and crossovers
1	Template for panel cutout
2	Grills

- 1) Carefully unpack your B-Flat Wallspeakers. Check to see that you have all the parts listed on the parts list. If you find any shortages notify Audio Concepts, Inc. at (608) 786-4729.
- 2) Installation will require making straight, accurate cuts into the wall material without cutting into wall studs, plumbing, or electrical lines. If you lack the tools or skills to do this properly, please contact a professional carpenter.
- 3) The edge of the acoustic panel is cut so the panel can be countersunk in the wallboard while the front outer edge remains in front of the wallboard.
- 4) The mounting position must be at least 1 1/2" from any wall studs. An electronic stud finder is helpful for this.
- 5) Make absolutely sure there are no electrical or communication wires, plumbing or gas pipes inside the wall near the mounting area.
- 6) Use the supplied cardboard template to pencil the cutouts onto the wall. Be sure the sides are straight and true and at least 1 1/2 " from any wall studs or internal wall bracing. Vertical mounting is suggested for the best image but horizontal mounting also yields a natural frequency balance.
- 7) Before making your final cutout make a "test" hole approximately 4" in diameter to insure that you will have adequate clearance from studs or any wiring.
- 8) Recheck your measurements and carefully cut out the mounting holes as accurately as possible.
- 9) Remove the grill from the acoustic panel.  
*Optional painting of the acoustic panel and grill should be done before the installation. Paint the grill and panel separately. The drive units must be carefully masked off or removed prior to painting. Make sure that the paint does not clog the holes in the grill.*
- 10) Connect your speaker wires to the spring-loaded terminals mounted on the crossover boards. Make sure to connect positive (+ red) to positive and negative (- black) to negative.
- 11) Look at the dog-ears on the back of the speaker and make sure that the screws are loose enough to accommodate the thickness of the wallboard.
- 12) Insert the speaker into the hole, making sure that the mounting dog-ears are folded in.
- 13) Use your screwdriver to tighten the screws on the front of the speaker. This will turn the dog-ears out and then tighten, pinching the wallboard between the dog-ears and the speaker frame. **DO NOT OVER TIGHTEN.**
- 14) Replace the grill to the speaker frame.
- 15) Sit back and enjoy the listening pleasure of your B-Flat Wallspeakers!

## **Troubleshooting**

Occasionally we get a call from someone who feels there is a problem with his or her B-Flat Wallspeaker. Sometimes a difficulty is encountered in the installation. Nine out of ten times a careful check of the manual or figures will clear up the problem. If you need assistance, E-mail ACI or call customer service at (608) 786-4729.

At least a couple of times a year we will get a fax or E-mail that goes something like this: *"Speakers not working properly, can't get enough sound even with the volume turned way up."* The problem may be different, but with very little information to go on it is almost impossible to troubleshoot the problem.

The following checklist may help:

- 1) Are both speakers fully assembled and placed properly?
- 2) Are all system hookups properly connected, no partial shorted wires or reversed connections, etc.?
- 3) Did you try the rest of your system with other speakers and all was okay?
- 4) Please be realistic in your expectation. Our speakers offer excellent value but even we can't beat the laws of physics. For instance, the B-Flat Wallspeaker does have excellent imaging for a wallspeaker. But a wallmounted speaker will never yield the sense of depth of the best satellites or full-range speakers.

If for any reason you aren't satisfied with the sound you're getting from your speaker we want to know about it. But before you call or write please try to narrow down the problem and eliminate other factors. If you contact us we will need to know:

- The size of your room
- Where you have the speakers placed
- What other equipment is in your system
- Have you tried other speakers and did they eliminate the problem
- Any other specific symptoms or information you can provide

Our customers are #1 with us and we want you to be completely happy with your B-Flat Wallspeakers by Descant.

## ***The Company***

Audio Concepts, Inc. (ACI), has been satisfying discerning music lovers since 1977. Our goal has and always will be to provide exceptional product and service to music enthusiasts around the world. Audio Concepts speakers are an expression of dedication to our customers and their desire for accurate musical reproduction. We believe you must audition speakers in your own home and in your own system. Please see the warranty statement for details.

After listening, please fill out and return the warranty registration. This warranty registration is important. It allows us to reach you in the event of future upgrades. The comments you make on the warranty help us to continually improve our products and customer service. Thank you!

**Audio Concepts, Inc.**

571 West Avenue N.

West salem, WI 54669

Phone: (608) 786-4729 Fax: (608) 786-4710

E-Mail: [service@audioc.com](mailto:service@audioc.com) Website: <http://www.audioc.com>

*Specifications and design are subject to change without notice.*

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# Warranty Registration, Please Return

**ACI div. Audio Concepts, Inc.**

571 West Avenue N. West Salem, WI 54669

[service@audioc.com](mailto:service@audioc.com) (608) 786-4729

*Congratulations on becoming an ACI speaker owner. Completing this registration enables us to contact you regarding future upgrades. Your information helps us provide the best possible products and service. If you need additional room please continue on the back. You may also register your product electronically at our web site. <http://www.audioc.com>*

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Main reasons you purchased from ACI: \_\_\_\_\_

Where did you first hear about ACI: \_\_\_\_\_

System(s) Purchased: \_\_\_\_\_

Date received: \_\_\_\_\_ Invoice Number: \_\_\_\_\_

Condition received in: \_\_\_\_\_

Comments or suggestions regarding our staff or service: \_\_\_\_\_

Other audio equipment used: \_\_\_\_\_

Do you have a home-theater system? \_\_\_\_\_

Do you plan to purchase other speakers within the next two years?\_\_\_\_\_ If so, what types of speakers are you interested in purchasing, (Tower speakers, satellite speakers, subwoofers, wall speakers, outdoor speakers, home-theater speakers, etc.)

***All speakers require at least 60-80 hours of playing time to sound their best. After your speakers have had time to break-in and you've done some serious listening please tell us:***

Features you like most about your ACI speakers: \_\_\_\_\_

Areas of performance or appearance you'd like to change: \_\_\_\_\_

Other comments or suggestions : \_\_\_\_\_

Will you recommend us to others?\_\_\_\_\_ (Over 1/2 of our customers were recommended to us by testimonials on computer data bases or referrals from someone they know. We put the money we save on advertising into the highest quality products at the lowest possible cost to you.)

We would appreciate being able to use your comments in future advertising. Please sign here to allow us that privilege.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

***Thank you for taking the time to complete and return this registration!***