



Owner's Manual

# QBx

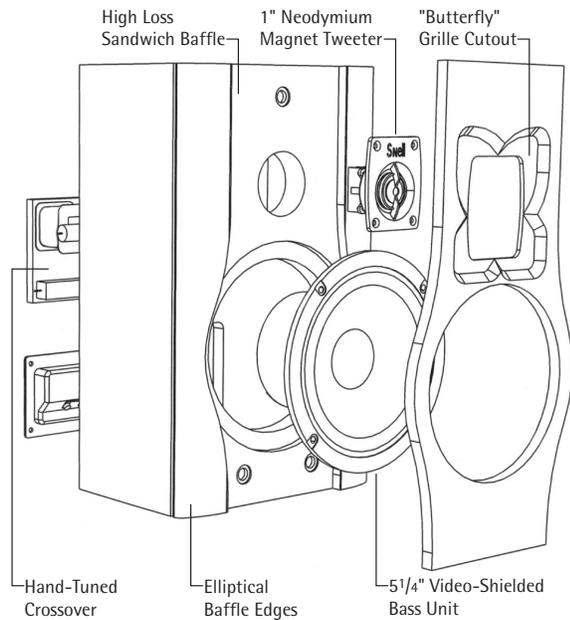
Surround

# Snell



## SPECIFICATIONS

Frequency Response ( $\pm 3\text{dB}$ )	98Hz–20kHz, -6dB @ 85Hz
Recommended Amplifier Power	15–150 watts (above 80Hz)
Nominal Impedance	6 ohms
Sensitivity (2.83v at 1m)	88dB SPL (in half-space, wall mounted)
Tweeter (video-shielded)	1-inch (25mm) black-anodized aluminum dome with neodymium magnet structure and multi-finned aluminum heatsink
Bass Unit (video-shielded)	5 $\frac{1}{4}$ -inch (130mm) polymer chassis, HDA cone and rubber surround
Cabinet Construction	$\frac{3}{4}$ -inch MDF walls
Composite Baffle Construction	Two layers of $\frac{5}{8}$ -inch high density fiberboard, joined by specialty adhesive
Grille	Black or white cloth
Dimensions (HxWxD)	11 $\frac{3}{4}$ x 7 $\frac{1}{2}$ x 6 inches 29.8 x 19.1 x 15.3cm
Weight/pair	24 lbs (11 kg)
Finish	Black or white painted MDF





## PRODUCT DESCRIPTION

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The QBx ("Quiet Box") Surround is the ideal choice for today's surround applications. It is a two-way design that incorporates all the QBx technology features. The result is exceptional performance with minimal space requirements. While the QBx Surround is diminutive in size, it has the full complement of QBx cabinet, driver and crossover technology.

The QBx Surround system consists of the following:

- 2 Model QBx Surround speakers with premounted hanging brackets
- 2 Mounting templates
- 2 Interlocking wall hangers
- 4 1" felt dot bumpers
- 8 Wall fasteners with screws for drywall mounting
- 8 Self-tapping screws (#6 x 2" phillips flat-head) for solid surface mounting

### QBx Technology

In an ideal speaker, the speaker cabinet is inert and resonance free. It should have smooth contours without projections that cause reflections which degrade high frequency response. In short, the cabinet should not negatively affect the sound of the loudspeaker. QBx (Quiet Box) refers to a number of techniques that reduce the detrimental effects that typically come from the resonances and reflections of ordinary cabinets.

### "Butterfly" grille cutout

The cutout area around the tweeter is given a highly irregular contour to prevent the irregular high frequency response that would otherwise occur. The contour expands and contracts around the perimeter of the tweeter, creating a "butterfly" shape.

### Elliptical baffle edges

The grille is mounted flush into the baffle. The baffle edges have large elliptical radiuses. This smooths the cabinet termination, greatly reducing the edge reflections. High frequency smoothness is preserved.

### High-Loss Sandwich Baffle

The unique high-loss baffle is constructed from multiple layers of wood and a high tech adhesive. The "lossy" adhesive that laminates the two layers of speaker baffle greatly reduces cabinet resonances, resulting in purer midrange and clean, crisp bass.

### Hand-Tuned Crossover

The crossover networks were designed using sophisticated computer simulation. Final system balance is determined by exhaustive listening tests. These networks adhere to an "in-phase" or Linkwitz-Reilly design: time alignment and coherency are maintained through the driver-to-driver transition region. For optimum use as a surround speaker, the QBx Surround has been designed for best response on a downward tilting ( $30^\circ, \pm 15^\circ$ ) axis. In production, each crossover is individually tuned by technicians to within  $\pm 0.5\text{dB}$  of the Master Reference, ensuring predictable performance in your home.

### Drive Units

This two-way monitor uses a 1-inch black-anodized aluminum dome tweeter with a multifinned aluminum heatsink and a  $5\frac{1}{4}$ -inch bass unit with a High Definition Aerogel cone. The video-shielded driver complement provides unlimited placement options.



## HOW TO PLACE YOUR QBx SURROUNDS

### Determining Room Placement

Whether you prefer a more direct surround effect, or the enveloping sense of a diffusion-oriented surround speaker, proper placement of your QBx Surrounds will enable you to achieve it. In either case, a few ground rules should suffice for maximum enjoyment of either surround placement. Take a few minutes to place your speaker systems correctly to ensure they sound their best.

### Height

The QBx Surround speaker produces optimum response along an axis that tilts downward 30° ( $\pm 15^\circ$ ). Place the Surround speakers at least 5 feet (1.5m) from a floor, yet 12 inches (30cm) from the ceiling. A fairly high mounting location will aid in sound diffusion and reduce the chance you will be able to audibly locate the speakers. Increased height will also help to even out the sound levels across the listening area.

### Boundaries

Keep the Surrounds at least 12 inches (30cm) away from an adjacent wall or large obstacle.

### Coverage Area

For large areas, multiple Surrounds can be used to ensure even coverage. Use one pair of Surrounds for every three rows of seats (approximately 10 feet between Surround speakers).

### Placement

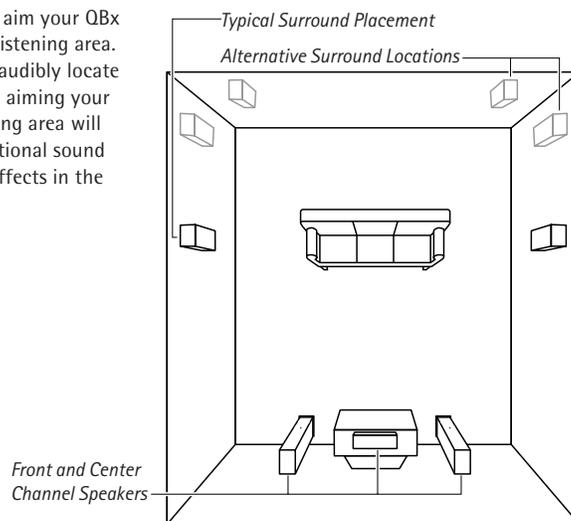
Please consult the placement diagram. To achieve the greatest sense of sound envelopment, place the QBx Surrounds to the side of the listening area. If the listening area is against a wall (for example, if your couch is placed against a back wall), place the QBx Surrounds to the side of the couch, leaving at least 12 inches (30cm) between the QBx Surrounds and the back wall.

### Back Wall Placement

When placing the QBx Surrounds behind your listening area, keep them as close to the side walls as possible — but no closer than 12 inches (30cm).

### Aiming Your Speakers

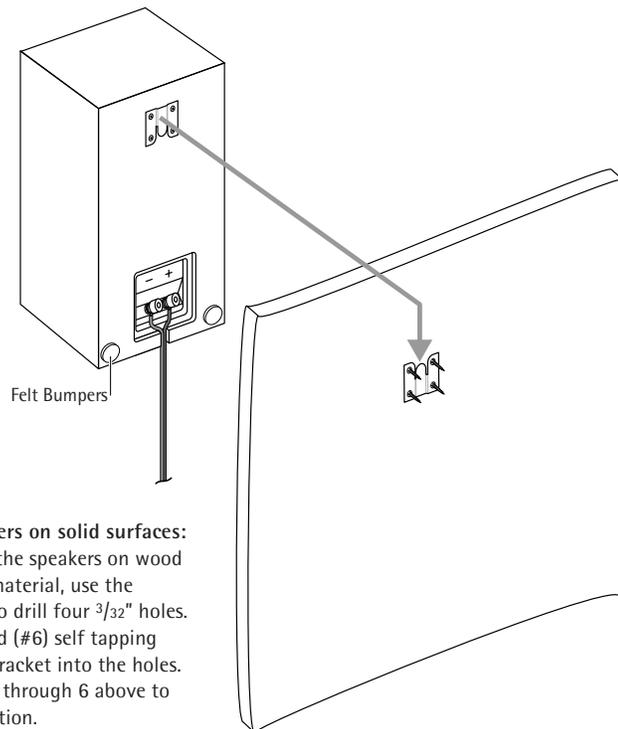
For a diffuse sound effect, aim your QBx Surrounds away from the listening area. Alternatively, aiming your speakers toward the listening area will create more focused, directional sound energy, creating exciting effects in the surround channels.



## MOUNTING THE QBx SURROUNDS

### Mounting the speaker on hollow surfaces (drywall, etc.):

1. Using the supplied mounting template, drill four holes. If the speaker wires are run behind the wall, make a hole for them as well.
2. Insert the supplied wall fasteners through the bracket and into the wall.
3. Level the bracket and tighten the screws.
4. Remove the adhesive backing cover from the felt bumpers and press them into place on the lower corners of the Surround cabinet as shown below. Connect the wires. If you are running the wires along the wall, use the wire groove channel on the speaker rear panel to ensure a neat installation.
5. Place the QBx Surround on the wall so the bracket on the back of the speaker is above the bracket on the wall. Lower the speaker until the two brackets interlock.



### Mounting the speakers on solid surfaces:

If you are mounting the speakers on wood or some other solid material, use the mounting template to drill four  $\frac{3}{32}$ " holes. Insert the 2" flat head (#6) self tapping screws through the bracket into the holes. Follow instructions 3 through 6 above to complete the installation.

### Aftermarket Mounts

As an added feature, we have provided pre-drilled holes to use with several popular aftermarket speaker mounts. Two such systems are the Omnimount 50 Series (or equivalent) or the Vogel SAT 5 (or equivalent).

## CONNECTING THE SPEAKERS

**Warning!** To prevent electrical shock, always switch off the amplifier or receiver when making connections to the speaker system.

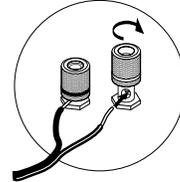
We recommend 16 gauge cable or thicker for runs up to 25 feet (8m) and 14 gauge wire or thicker for longer runs.

Connecting with bare wire:

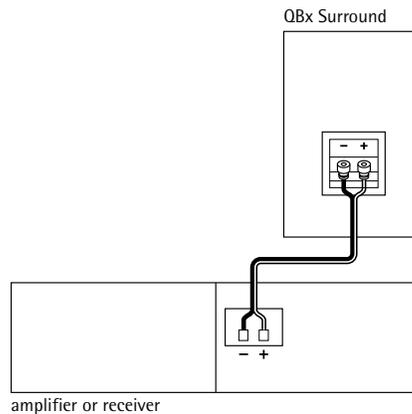
- ▶ Insert bare wire into holes and tighten.

Connecting with banana plugs, pins or spade lugs:

- ▶ When using connectors, be sure that they are small enough to allow the speaker to hang flat on the wall. The gold-plated binding posts accept standard banana plugs and pins, and can accommodate spade lugs to 5/16-inch.



- ▶ When making connections, be sure to connect + to + (red) and - to - (black).



amplifier or receiver

### Using With a Multichannel Surround Processor

When using a subwoofer:

- ▶ Select the *SMALL* setting on your receiver or processor for your Surround channels. This routes all bass information (typically below 100Hz) to your subwoofer.

When not using a subwoofer:

- ▶ Select the *LARGE* setting on your receiver or processor for your Surrounds. This routes all bass information (typically below 100Hz) to your Surrounds. Otherwise, bass information will be lost.

Matching the sound levels of each speaker:

- ▶ The output level of the Surround speakers can be set using the noise signal generator built into some AV electronic components or, often just as effectively, by ear. If your AV electronic components include a "circulating noise source" (a test noise that switches from channel to channel) use it to balance the output of the channels. If you do not have a circulating noise test signal, select several movie scenes that have significant surround sound content. Adjust the levels by ear so that the surround effects, when present, seem similar in level to the front channels. Surround effects are most realistic when the levels are set to be subtle, not overwhelming.



## HOW TO CARE FOR YOUR SPEAKERS

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- ▶ *Use a soft terry cloth towel slightly dampened with water, glass cleaner, or a diluted mild detergent. The towel should be just damp enough to wipe the surface clean without leaving a trail of moisture.*
- ▶ *Do not use abrasive cleaners or any cleaner containing chemicals harsher than those found in glass cleaner.*

## LISTENING LEVELS AND POWER HANDLING

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- ▶ *The power recommendation for the system assumes you will operate the amplifier in a way that will not produce distortion. All speakers can be damaged by even a modest amplifier if it is producing distortion. If you hear a gritty noise or other signs of strain, turn down the volume. Prolonged or repeated operation of your speakers with a distorted signal can cause damage that is not covered by the warranty. It is especially important that you do not overdrive the bass capability of smaller speakers. Watch for noises, such as pops, caused by the music's bass line. Use of the loudness control and/or full bass boost at louder volumes is likely to overdrive the woofer. Use such controls sparingly.*

## LIMITED WARRANTY

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For five years from the date of purchase, Snell Acoustics will repair for the original owner any defect in materials or workmanship that occurs in normal use of the speaker system, without charge for parts and labor.

Your responsibilities are to use the product according to the instructions supplied, to provide safe and secure transportation to an authorized Snell Acoustics service representative, and to present proof of purchase from an authorized Snell dealer in the form of your sales slip when requesting service.

Excluded from this warranty is damage that results from abuse, misuse, accidents, shipping, repairs, or modifications by anyone other than an authorized Snell Acoustics service representative. This warranty is void if the serial number has been removed or defaced.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

### **If Service Seems Necessary**

Contact the dealer from whom you purchased the speaker system. If that is not possible, call us at 978-373-6114, or write to: Snell Acoustics  
143 Essex Street  
Haverhill, MA 01832

We will promptly advise you of what action to take. If it is necessary to return your speaker system to the factory, please ship it prepaid in the original factory packaging. Please note that Snell Acoustics will not be held liable for shipping damage due to improper packaging. After it has been repaired, we will return it freight-prepaid in the U.S. or Canada.





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Part #542-1014

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