

## HI-FI, DOWN LOW

Want to build a home theater in your basement? A Boulder, Colorado, homeowner learns the challenges of building a basement home theater first-hand.

BY ADRIENNE MAXWELL

It's a common question for homeowners residing in the Midwest: What do I use the basement for when I'm not taking shelter from tornadoes? Should it be a storage area, an office, a game room? With the growing popularity of DVD and HDTV, this room is solidifying its status as *the* spot for a dedicated home theater.

In the case of one Boulder homeowner, a true A/V enthusiast, a home theater was the only logical choice. When he moved into his home a few years ago, the basement already contained a simple A/V setup, but the new owner quickly decided that he wanted more of a theater experience than the system could provide. But, like many of us, he didn't want to limit the room to movie-watching; it was important to create a more-casual space that lent itself to other forms of entertaining.



He turned to his long-time installer, Randy Baker of Listen Up. To transform this open basement space into a true home theater, Baker knew it was going to take more than just higher-quality gear, so he referred the client to Robert Dreher at Custom Quality Theaters, a remodeling company that specializes in home theater spaces. As the final piece of the installation puzzle, Baker recommended Denver-based interior designer Becky Stensland to help give the theater its warm, casually elegant style.



### Basement Basics

“The lower-level install is the most typical install we do,” Baker says. “Usually, however, when people build a home, they have no idea what their basement will eventually be used for, so the dimensions aren’t always conducive to good sound.” Seldom are folks aware when they begin a basement install that it may be necessary to move existing walls or build new ones, be it for layout or acoustic reasons. In this room, Dreher’s team had to pull up the concrete floor to run wires to the main seating area and move the back wall in order to create



adequate space for a secondary seating area—a raised platform with a custom red leather couch, which is now the homeowner’s favorite seating area.

An attractive room isn’t exactly a builder’s top priority when constructing a basement. Support posts, heating ducts, and wiring are often visible. “So finding the best location to get maximum performance and work around pipes, beams, and heating ducts is a very common challenge in a basement,” Dreher explains. In some cases, contractors can hide such adornments in creative ways; other times, those fixtures have simply got to go. In this case, the home-

owner was adamant about the removal of a support beam about 2 feet from the left sidewall. The problem was, that beam supported the 8,000-pound rock fireplace in the room above. Removing it wasn’t going to be easy. “I love a challenge,” Dreher laughs. So he called in an engineer, and together they figured out an alternate way to brace the fireplace.

One issue that isn’t a concern in a standard, fully submerged basement is light control. “A basement affords us less competition with windows,” Baker says. However, it’s common, when a house is built into the side of a hill, to find basements that are below ground from the front side of the house but lead out to the backyard in the rear. Such was the case here, so another interesting challenge involved controlling light and sound waves bouncing off the glass French doors that comprise about 80 percent of the right wall. Adding Lutron’s drop-down SivoiaQED blackout shades was easy enough for complete light control, but not ideal during those times when the homeowner wants a casual, open feel with a bit of light filtering through the room. Stensland turned the team on to an attractive, motorized bamboo shade that would provide limited light control during the day and help tame speaker reflections off the glass. In addition to being practical, these custom-ordered, hand-woven shades are a wonderful complement to the room’s warm aesthetic.



### While You’re At It...

One final design challenge remained in the room’s construction—and it was a doozy. As Dreher explains, “Halfway through the theater’s construction, the owner asked me about some pipes coming out of the concrete floor in the basement area adjacent to the theater. The original homeowner had installed rough plumbing for a future bathroom. When he heard this, he decided that he, too, would like a bathroom...and, while we were at it, an exercise room.” The problem was, said plumbing wasn’t in the correct location for the new bathroom. To avoid destroying any of the high-end HT equipment and furniture while adding these extra rooms, theater construction came to a complete stop while Dreher, Stensland, and the owner



Robert Dreher, Custom Quality Theaters



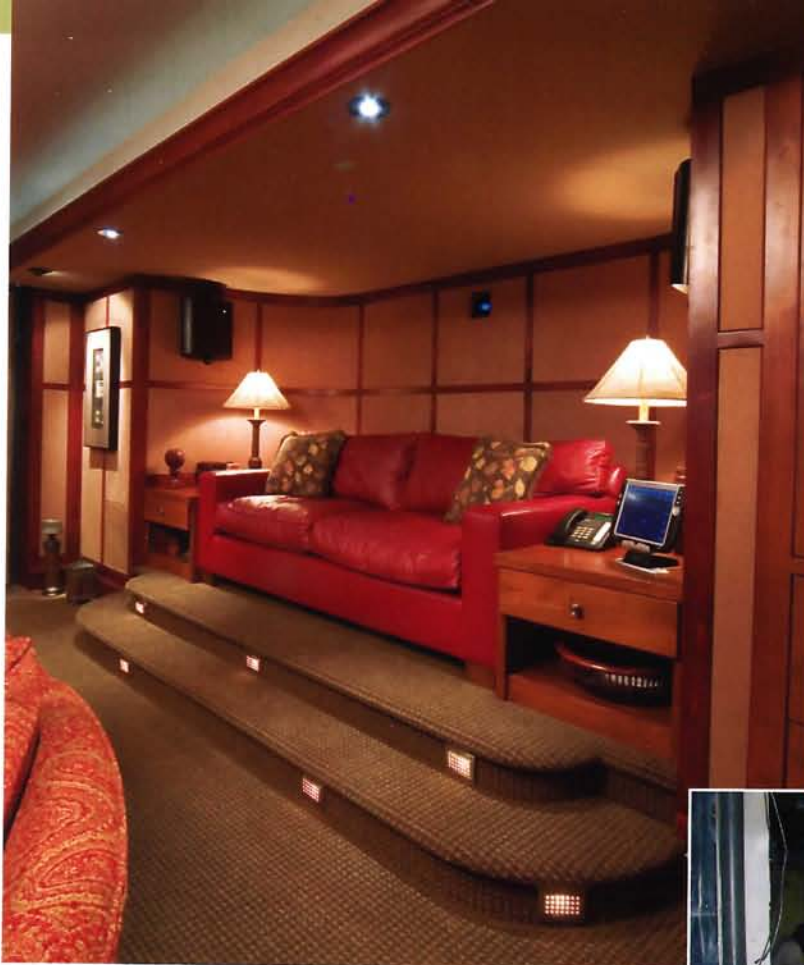
Randy Baker, Listen Up

### LEFT

This theater has two levels of casual seating. Consider traditional sofas and couches for a more relaxed look in your theater. Also, make sure to anticipate the maximum number of people the theater will need to seat.

### FACING PAGE

A Runco DLP projector shines onto a Stewart screen. When the room isn’t being used as a theater, the screen disappears. For multipurpose rooms, retractable screens are a great investment.



**ABOVE**

The red leather couch, built on a riser complete with lighted steps, is now the homeowner's favorite vantage point from which to enjoy a movie.

**ABOVE RIGHT**

The theater's electronics, including products from ADA and Monster, are housed in a separate equipment room.

**RIGHT**

This basement is built in the side of a hill, so the rear opens to the backyard, as shown here. [More pictures can be found on www.AudioVideoInteriors.com.](http://www.AudioVideoInteriors.com)



began the bathroom-design process. It was almost nine weeks before theater construction resumed. "This was the most complicated HT construction I've done," Dreher tells us. "A project that was supposed to take four months wound up taking 10."

In addition to the major redesign, there were many small delays. "When an interior designer is involved, there are often lots of changes along the way." While this is to be expected, Dreher recommends that people designate a project manager when they begin a major install. "Communication between all of the team members is crucial. Having the contractor be your project manager will improve

that communication between the installers, the designer, and all of the sub-contractors. This prevents the project from becoming disjointed, which causes delays and adds to the expense."



## HOW IT WORKS FOR YOU

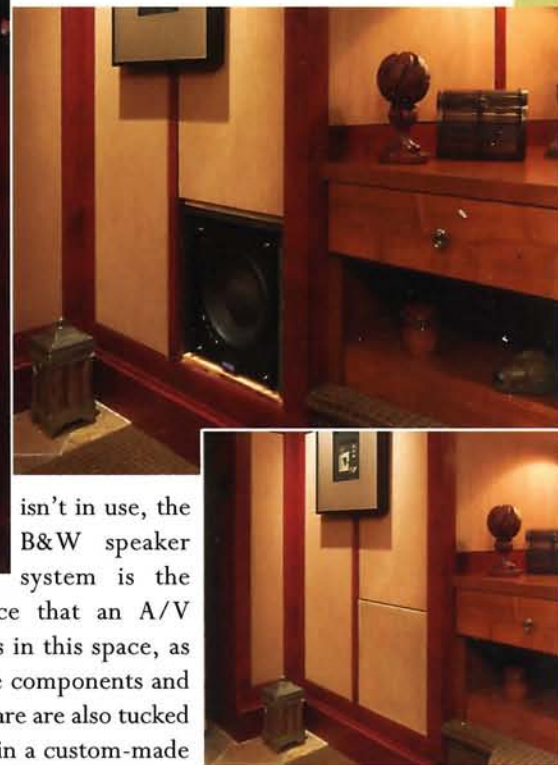
- **Consider the Structure.** A basement is one of the most common places to install a home theater. It's important to understand the challenges that this type of installation presents before you begin. Where do you envision the screen and seating? Are there support posts, heating ducts, or other structures in the way? Will walls need to be moved to create the proper dimensions for good acoustics? Will you need a floating ceiling to prevent sound transfer to the rooms upstairs?
- **Gather Ideas.** Try to have a clear idea of what you want before the construction begins. It's much more costly to change things along the way. Do a lot of research on your own, such as perusing *Home Theater* and *AVI*, along with general design magazines to find ideas that you want to apply to your situation. Don't worry if it's too expensive. The installation team may be able to create something similar for a lot less money.
- **Hire a Pro.** Use a contractor who has experience building home theaters, as they will have a clearer understanding of how each piece fits together. If you choose your installer first, ask them to recommend an experienced HT contractor.
- **Ventilate Your Theater.** If your basement is completely enclosed, ventilation is important. If a room isn't ventilated properly, people won't want to spend time there.
- **Two Rooms from One.** If your basement has awkward dimensions that aren't conducive to good sound or video (your installer should be able to advise you on this), consider making more than one room out of the space. Many basement installations are often separated into a theater and a lobby area, like the old movie palaces.

## Don't Forget the Gear

As Dreher and his team finished the room, Baker and the Listen Up guys were busy building an A/V setup that would satisfy the homeowner. "This client likes to listen to music at extreme output levels," explains Baker. "We needed speakers and amps that could perform." They went with ADA electronics and B&W's Nautilus 800 speakers up front. To combat potential standing waves, the system includes two subwoofers—a freestanding sub and another that's hidden in the rear wall. Although the system uses seven B&W speakers around the soundstage, it's actually a five-channel configuration. Because the owner prefers to sit in the recessed area at the back of the room, Listen Up was concerned that he wouldn't get the full effect of the surround channels, so they opted to run the basic surround feed to those speakers instead of using them to reproduce the rear effects in an EX or ES soundtrack.

Fan noise was also an issue in that recessed seating area, since the Runco VX-5000ci DLP projector resides just on the





other side of that back wall. Dreher built a heavily insulated wooden projector box, and he used 10mm-thick optical-grade glass in the wall cutout to prevent sound from leaking through.



**LEFT TO RIGHT**  
B&W Nautilus speakers provide powerful output at high volume levels; the Sub-Zero 700BR drawers are great for frosty beverages; an alternate equipment rack for sources sits in the theater for easy access; the subwoofer hidden inside a rear wall.

Sound leakage into the rest of the house is certainly a worry for any home theater, but it's of particular concern in a basement install, which may be adjacent, from below, to more rooms than a living- or family-room theater system. The team had to build a floating ceiling to prevent sound from working its way upstairs.

In the pursuit to keep the space casual and comfortable, the homeowner requested that the projection screen not be visible when people aren't watching anything. That meant recessing another wall up front and installing a 92-inch-diagonal Stewart GreyHawk screen that drops from the ceiling. When the screen



isn't in use, the B&W speaker system is the only evidence that an A/V system exists in this space, as the source components and software are also tucked away in a custom-made

alder wood cabinet in the back of the room. The electronics reside in a gear rack right behind the cabinet, on the other side of the wall, which made it easy for the installers to run wires.

A couple of especially nice touches include the refrigerated Sub-Zero 700BR drawers within the source cabinet and the Whisper Walls acoustic panels, with faux-suede covers and alder wood frames that adorn every inch of wall space.

Last but not least, the Crestron control system pulls it all together. Baker chose a Crestron because of its programming flexibility. "The client travels a lot and wants his family to be able to use the system easily when he's away. You can customize a Crestron panel so that it only requires one-button touch."



The theater may have presented some unique challenges and taken longer than planned, but, in the end, Dreher, Baker, and the team achieved the desired result of a truly high-end theater in an inviting space.

Of course, a true theaterphile can never get enough. Next on this homeowner's to-do list: an outdoor theater for summer entertaining. Because the only thing missing from the Rockies is a good home theater system. 🎬



## Home Theater Who's Who

Confused by all the people involved in a home theater installation? Not sure what each person's responsibility is? Here's a quick guide to understanding who's who.

**Contractor:** As with any construction job, a contractor on a HT installation coordinates and oversees all of the people involved in building your theater room and its infrastructure, including special cabinetry, floating ceilings, etc. This person does the scheduling and deals with sub-contractors, like electricians.

**Installer or System Designer:** The installer provides and sets up your A/V gear and accessories. He will help determine the best arrangement for your room to achieve maximum performance. He is responsible for wiring your theater with the necessary cabling, setting up automated systems like drop-down screens and lighting, and programming the control system that ties it all together. Many times the installer will take on contractor duties, such as hiring the electrician.

**Interior Designer:** The interior designer works with you to create the desired appearance of the room, choosing color schemes, carpets, accent pieces, and other aesthetic elements. Once the installer determines the best room layout from a performance standpoint, the designer can find creative ways to make that layout look its best in the room.

**Architect:** Sometimes, the architect will be involved, especially for a new-home construction.

**Lighting Designer:** Often, the installer will bring in a separate lighting designer to create the dramatic appearance of your dedicated home theater space or media room.

**Acoustician:** Achieving the best sound in a room is an exact science. An acoustician can design, measure, and/or add treatments that are acoustically engineered to optimize your room's sound. Many times, the installer will take on the duties of an acoustician, or contract an outside professional.

Custom Quality Theaters, (303) 543-9963  
Listen Up, (303) 744-1179