

# Entertainment Upgrade

Homeowners select a sophisticated entertainment system for their home and have it installed within tight construction deadlines.

by Lisa Montgomery, Photography by Brian Leng

WHAT WOULD YOU DO IF YOUR BUILDER OFFERED YOU AN AWESOME, STATE-OF-THE-ART entertainment system for your new house? Jump for joy? Pepper him with questions about the finer points of plasma? Or, maybe, like Mr. and Mrs. C., you'd get right down to business. ■ As any buyer of a production or even semi-custom home knows, there's little time to fiddle around when you're working around the tight schedule of a builder—in this family's case, Taylor Woodrow. As the family discovered during the rigorous homebuilding process, you've got to make many important decisions, and make them fast, otherwise you'll miss a golden opportunity to own the exact entertainment system you want and have it integrated properly into the structure and design of the house.

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## HIGHLIGHTS

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- Hear how one family got custom entertainment systems in their house in record time.
- Constructing audiophile-quality listening rooms with the help of a speaker manufacturer.
- Reasons for using a standard-looking closet to stow nearly every piece of electronic hardware.



■ A 65-inch TV and a seven-speaker surround-sound system fills Mr. and Mrs. C.'s family room with great entertainment.





■ A wireless Crestron touchpanel puts the family in charge of a whole-house music system from any room of the house.

■ The homeowners choose to house nearly every piece of high-tech hardware, including DVD players, amplifiers, receivers, CD changers and more, inside a closet.

## Custom Creations

It's a growing trend among home builders to offer entertainment packages to their homebuyers. A package from one builder might pull together a home theater consisting of a big-screen TV and a set of five speakers; another builder might bundle all the components needed to feed music to four rooms of the house. The packages are pretty much set in stone, with little room for modifications and additions. If the package includes five speakers, that's what you get—no more, no less. If it specifies square in-wall speakers, circular models are usually out of the question. There's a good reason for this cookie-cutter approach.

It saves the builder time and money, and homebuyers the arduous process of sifting through and selecting their entertainment components piece by painstaking piece.

Mr. and Mrs. C., however, hooked up with a semi-custom homebuilder that was much more flexible with its home entertainment offerings. They worked with the builder's home systems installation partner to completely customize their home entertainment system. They could choose from a wide variety of TVs, speakers, surround-sound systems and remote controls—and have those components installed wherever and however they wanted. Good thing. The homeowners packed their home with some of the best components around, including several stylish touchpanels to control the audio/video equipment, architectural speakers and wall-skimming plasma TVs.

## The Nerve Center

There are two basic schools of thought when it



comes to assembling and designing the pieces of an elaborate home entertainment system. One, you can locate the components in different areas of the house—a VCR here, a DVD player there—or two, you can consolidate them in one main area. Mr. and Mrs. C. opted for the latter approach. Tucked neatly inside a specially designed closet in a main hallway are multiple DVD players, CD changers, satellite receivers, amplifiers and a sophisticated control processor to keep all the equipment in perfect sync. You'd never guess this unassuming closet has this much entertainment muscle. A door that resembles all the others in the house completely hides this blinking nerve center from sight. Stowing nearly every piece of entertainment gear inside a closet is an effective way to keep a rather unsightly assortment of technology under wraps, but one that requires due diligence. The homeowners had to select the components well before the house was framed. That way, based on the measurements and ventilation requirements of the equipment, Taylor

## BREAKING IT DOWN

### TOUCHPANEL DESIGNS

The family uses a total of seven touchpanels to control the audio and video equipment of their house. The screen of each touchpanel is designed slightly differently, to operate a different set of equipment.

### LCD TV

The kitchen's Sharp LC-150M2UC TV displays movies from a DVD player stored in a closet nearby. The slim profile of the TV conserves counter space.

### CONTROL CENTRAL

A central control system, the Crestron CNX, receives commands from several touchpanels located throughout the house and relays them to the appropriate pieces of audio and video equipment.

### PIVOTING SPEAKERS

It's sometimes tough to get speakers exactly where you need them. That's why the home systems installers at Audio/Video Entertainment selected SpeakerCraft's AIM speakers for many rooms of the house. The in-ceiling speakers can be pivoted toward the listening area while remaining recessed behind a flush-mounted grille.



IMAGE ON SCREEN COURTESY OF ARTISAN HOME ENTERTAINMENT

■ When Mr. and Mrs. C. want to get away from it all, they head to the master bedroom, where a 42-inch plasma TV and a portable touchpanel for cuing up music and movies await.

Woodrow could construct a space that was just the right size. Meanwhile, the installation team at Audio/Video Entertainment in Laguna Niguel, CA, could route the wire that would eventually feed DVD movies to every TV, music to every set of speakers, and commands to the nerve center from several sophisticated touchscreen-based remote controls placed throughout the house.

### Three Rooms That Rock

While just about every room of the 5,000-square-foot home receives a dose of music and movies, there are three areas that were engineered specifically during the construction phase to really rock. A private home office, for example, which is attached to the house by only a narrow breezeway,

achieves acoustical perfection, thanks to custom-made speakers that are sonically matched to the size and shape of the room. "We drew up a diagram of the measurements of the room, with furniture placement indicated, and speaker manufacturer CAT (California Audio Technology) designed ones that would be best for the room," says Audio/Video Entertainment sales operation manager Larry Martinez.

To preserve the ocean view provided by the huge windows of the home office, CAT decided to "divide" each of the room's two in-wall speakers into two parts. The tweeter and midrange of each speaker are above the window, and the woofer is below. The speakers are angled and set into the wall according to the location of the desk chair.

## CONSULTATION

2-3 days

Mr. and Mrs. C. met with the builder's home systems installation partner, Audio/Video Entertainment (AVE) of Laguna Niguel, CA, to discuss specifically how they'd like their entertainment systems to perform.

## DESIGN &amp; ENGINEERING

3 weeks

AVE used the information gathered during their consultations with Mr. and Mrs. C. to design several entertainment systems for the house.

## FINALIZING

2-3 days

Speaker manufacturer CAT (California Audio Technology) visited the home to identify the best locations for the home's many speakers.

## PREWIRE

4 days

As the home was being framed, the installers at AVE routed wiring to keypads, speakers and other equipment locations.

## ELECTRONICS SELECTION

1 day

Five months into the construction of the home, AVE helped the homeowners select electronic components for their home.

## ELECTRONICS INSTALLATION

1 month

AVE installed the TVs, receivers and other electronics into the house.

The result is an audiophile-grade listening room that also happens to be a functional home office.

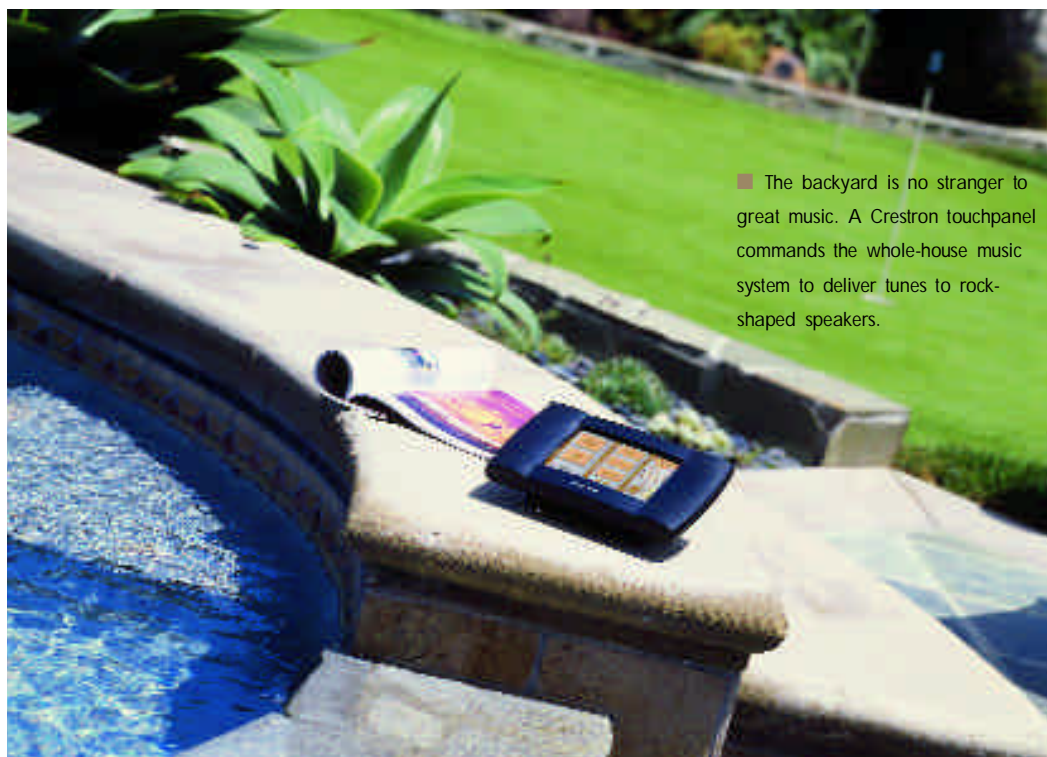
No CDs clutter Mr. C.'s office. Instead, the tunes come from the Sony 400-disc CD changer located inside the central equipment closet. He doesn't need to leave his desk to cue the music, either. A Crestron control system takes care of that. A small Crestron wireless touchpanel that sits on the office desk displays the titles and tracks of the family's entire CD collection. By simply touching his finger to a song title on the screen, in seconds Mr. C. can relax to music in the office. The same touchpanel is used to adjust the volume, skip ahead to a different song on the track, or choose a different CD altogether.

Of course, 400 CDs are tough to control, even with the help of a sophisticated control system like the Crestron CNX. As Mr. C. discovered, utilizing an Escient TuneBase music management system makes all the difference in the world. This system, the brains of which are located in the central closet, identifies each CD the song titles on each disc, and retrieves the cover art for each CD through an Internet connection to a CD database. Pictures of

every cover and titles of every song can then be displayed on Mr. C.'s touchpanel. Now, using his computer, which is networked to the Escient TuneBase, he can arrange and organize the compilation of art and titles in any manner to create his own personal playlists. One playlist, for example, might display only jazz tunes; another, some of his favorite tracks to enjoy while hard at work.

## From Music to Movies

The home office, obviously, was designed for music enjoyment. The family room, on the other hand, was conceived as a place to enjoy digital-grade movies—and lots of them. Like the Sony changer that holds the music, an Integra DVD player carries 300 movies for the family. Again, the family uses a portable wireless Crestron touchpanel to choose a flick. And again, an Escient server, this time a DVD Management System, organizes and displays their choices in a logical manner. Although the types of entertainment that pervades the family room and the home office are different, the similarity between how management systems operate shortened the learning curve for the family signifi-



■ The backyard is no stranger to great music. A Crestron touchpanel commands the whole-house music system to deliver tunes to rock-shaped speakers.



■ A 15-inch LCD TV (right) displays movies from the family's 300-disc DVD changer, but still conserves counter space.

cantly. Instead of having to learn how to work two distinctly different systems, the family was able to master both at the same time. Additionally, the touchpanel offers quick setup of the entire home theater system. At the touch of a button it activates the surround-sound system and TV, and brings up a display of the DVD library.

In seconds, the family is basking in the splendor of crisp and vivid 65-inch TV images and body-tingling surround sound.

### A Little Privacy, Please

Many moms and dads crave occasional privacy from the kids, and Mr. and Mrs. C. are no exception. But they certainly didn't want to sacrifice great entertainment just to get away. To ensure that their master suite was every bit as visually and audibly engaging as their family room and home office,

Audio/Video Entertainment installed a 42-inch widescreen plasma TV to a wall. To complement the screen, they outfitted the room with its own dedicated home theater surround-sound system, including a set of five unobtrusive in-ceiling SpeakerCraft AIM speakers and a Triad in-wall subwoofer. The entire accouterment is commanded from, once again, a wireless Crestron touchpanel.

Unlike the mega-DVD and CD changers found in the closet, the VCR and DVD player of the master bedroom are fairly ordinary, intended to be used when Mr. or Mrs. C. brings home a movie from the video store. But that doesn't mean they can't access their giant digital libraries from the touchpanel anytime they wish.

Another touchpanel, this one mounted to the wall in a short hallway that joins the sleeping area of the master suite to the bathroom, stands ready

## Electronic Options from Builders

Timeframes are typically tight (see Time line, page 63) when working with a production or semi-custom builder such as Taylor Woodrow. "Six weeks is about all you get to pick out countertops, light fixtures, bathroom fixtures, wall paint, window moldings, and other things," says sales operation manager Larry Martinez of custom home systems installation firm Audio/Video Entertainment (AVE) in Laguna Niguel, CA. "Add in a complicated entertainment system, and you're really pushing it."

But with a good plan and a well-organized installation crew, it can be done, as the home of Mr. and Mrs. C. proves. By working with a builder that embraces technology as an important part of its upgrade options, you'll get a great entertainment system, as well as other technologies for your home, faster than you ever imagined.

Of course, no builder offers exactly the same electronic options or follows the same installation approach. Lennar Homes, for example, installs a basic security system, high-speed wiring system and music system as standard amenities in every home it builds. These systems are included in the price of the house, and if you want something else, you'll have to pay extra. KB Home, on the other hand, offers every system as an option. This approach may require more time on your part and ultimately add more to the cost of your home, but it provides flexibility in getting exactly what you want.

Mr. and Mrs. C.'s home builder, Taylor Woodrow, presented several ideas to the home owners, then hooked them up with the home systems installers at AVE. "They basically said you can get whatever you want, and here are the people who do it," says Martinez.

During consultations with AVE, the homeowners selected speakers, TVs, satellite receivers, touchpanels and other electronic amenities for their home, decided how those components would work together, and where they would be installed.

to pull music to the two round SpeakerCraft in-wall bathroom speakers. A separate wall-mounted volume control offers a quick and convenient means to raise the volume when the shower is running.

### Cooking Up Something Good

Kitchens are often overlooked as an entertainment area, but Mr. and Mrs. C. made sure theirs was completely up to the task. On a wall hangs a 15-inch LCD TV. It, too, can display movies that are loaded into the DVD player in the nerve center. But rather than risk a wireless touchpanel getting doused with tomato sauce or smeared with jam, Audio/Video Entertainment kept the critical controller out of harm's way by installing it into a wall. All the same information and controls as on other touchpanels are displayed on the one in the kitchen, but with the added ability to command music to rock-shaped speakers in the backyard. Once the family is out-

side, they can use a wireless touchpanel to cue up a different CD. A special antenna attached to the back of the house captures the signal and relays it to the equipment inside.

### Finished in Record Time

Through quick decision making and close communications with their homebuilder and home systems installer, Mr. and Mrs. C. were able to not only construct a 5,000-square-foot home, but design and install a sophisticated home entertainment system into the house in about six months. Most systems of this magnitude take at least twice as long to complete. The pressure to meet the tight deadlines of the builder may have been a bit stressful for both the homeowners and their home systems installer, but being able to complete the project and enjoy movies and music sooner than they expected was a just reward. **EH**

## EQUIPMENT LIST

### CONTROL SYSTEM

Crestron CT-1000 Color Touchpanels (4)  
Crestron ST-1550C Wireless RF Touchpanels (3)  
Crestron CN-TVAV CRESNET TV/AV Controllers (2)  
Crestron CNAMPX 16 x 16 16-Channel 1000W Amplifier  
Crestron CNX Control System  
Crestron SNX-PAD8 Audio Distribution and Control

### COMMAND CENTER (INSIDE CLOSET)

Onkyo Integra DTR-9.1 Digital 7.1-Channel Receiver  
Escent TuneBase 100 CD Jukebox  
Sony CDPM555ES 400 CD Changer  
Middle Atlantic SRS Rack System  
Sony SAT-HD100 HDTV Satellite Receiver  
Sony SAT-T60 Digital Satellite Receivers with TiVo Service (3)  
Bryston 14B ST Amplifier  
Bryston 8B-ST Amplifier  
Bryston 10B Electronic Crossover  
Monster Cable HTS5000 Home Theater Reference Power Center  
Onkyo Integra DPT1 300 DVD/CD Mega Changer  
Sony KV9PT60 9-inch TV

### HOME THEATER

Sony KP65XBR10W DTV Ready TV  
Sony SL-VN71 Hi-Fi VCR  
SpeakerCraft Aim Five 6-inch Speakers (7)  
Triad InWall Bronze/6 Power Subs (2)  
Monster Power HTS-2500 Theater Reference Power Center

### BEDROOM ENTERTAINMENT SYSTEM

Sony PFM42B1/H 42-inch Plasma TV  
Sony PLP-91/A In-Wall Mounting Bracket for TV  
Sony SL-VN71 Hi-Fi VCR  
Onkyo Integra DTR-5.1 Digital A/V Receiver  
Onkyo DV-S535 Single Disc CD/DVD Player  
Monster Power HTS-2500 Theater Reference Power Center  
SpeakerCraft AIM Five 6-inch In-Ceiling Speakers (5)  
Triad InWall Bronze/6Power Sub In-Wall Subwoofer

### HOME OFFICE

California Audio Technology 8.0 Tiburon In-Wall Loudspeakers (2)  
California Audio Technology 3.0 Sub Miramar In-Wall Subwoofers (2)

### KITCHEN

Sharp LC-150M2UC 15-Inch LCD TV  
Premier Mounts PFP-300P LCD Flat Panel Wall Mount  
SpeakerCraft 6.5 CRS 6-Inch Speakers (2)  
Russound ALT-X2D In-Wall Volume Control

### OUTDOOR MUSIC SYSTEM

Rockustics Rocky Jr. 6.5-Inch Speakers (6)  
SpeakerCraft WS520 Outdoor Speakers (2)  
Russound WALT-2 Weatherproof Volume Controls (2)