

# The Power of Planning

Weekly meetings with their homebuilder, interior designer and home systems installer kept the construction of Bill and Toni Johnson's high-tech home right on track.

*By Lisa Montgomery, Photography by Larry Evans*

IT'S A WELL-KNOWN FACT THAT BUILDING A HOUSE ENTAILS THE HANDIWORK OF A VARIETY OF tradespeople—the builder, the architect, the plumber, the heating/cooling contractor, the bricklayer, and so many others. Each person performs his or her own special job, but that doesn't mean they shouldn't all work as a team. If not, the finished house can be a disjointed structure that is difficult to manage and even more trying to live in. ■ Bill and Toni Johnson's waterfront residence exemplifies the importance of teamwork to the form and functionality of a new house. With the input of their builder, architect, interior designer and home systems installer, the Johnsons pulled together a smart yet beautiful house that seamlessly utilizes a variety of powerful state-of-the-art electronic systems.

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## HIGHLIGHTS

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- The right way to prepare a home for the incorporation of sophisticated electronic systems.
- Sophisticated systems made easy to use through creative design.
- Screens from 14 to 61 inches provide a means of both entertainment and control.

■ An AMX ViewPoint touchpanel operates a 61-inch high-definition Marantz TV, as well as the room lights.





■ A 42-inch Pioneer Elite plasma TV gives everyone in Bill and Toni Johnson's Irish-style pub a great view of the action. A ViewPoint touchpanel keeps them in control of the home's lights and whole-house music system.

## Intro to Electronics

Although their house is brimming with top-notch lighting, music and entertainment systems, Bill and Toni hadn't initially considered any type of technology for their new home. Surprisingly, it was their interior designer, Richard Samuels of Interiors by Design in South Bend, IN, who suggested that they incorporate a few electronic touches into the residence. Although many interior designers shun the use of technology, Samuels had decorated enough high-end homes to know how effectively electronic systems could enhance the interior of Bill and Toni's home.

Without hesitation, Samuels recommended Grand Home Automation, Inc., of Grandville, MI, for the job of selecting, designing and installing electronic systems in the Johnson's house. And so Rich Conklin joined the weekly meetings conducted by builder Jeff Martin of Martin Brothers Contracting in Goshen, IN.

## Core Complements

Based on comments from the Johnsons, the well-documented minutes from the builder and the many architectural drawings of the house, Conklin quickly pinpointed a few key systems for the Johnsons. "They entertain big parties quite often, so a whole-house music system, a lighting control system and a couple of big-screen TVs were givens," says Conklin. To that, he added convenience products such as a multiline telephone system and a high-speed wiring system.

Granted, that's a lot of technology for a couple who would rather sail on the lake than surf the Internet, but by working closely with the interior designer and the builder, Conklin was able to fuse the technology unobtrusively into Toni and Bill's home and lifestyle.

Speakers in the great room, for example,

remain completely invisible so as to raise no visual conflict with the beautiful arch of the room's windows and the assortment of strategically placed light fixtures that accentuate the elegant furnishings, artwork and unique architectural style. The SA2B speakers from Sound Advance are specially designed by the manufacturer to fit in the drywall and be completely covered with plaster, so not even the speaker grilles peek out. When the Johnsons cue their AMX whole-house sound system—as easy as pressing a button on a nearby wall-mounted keypad—their favorite music magically emanates from the walls.

Even the conventional surround-sound speakers found in two of the home's mini-theaters stay out of sight, thanks to some clever design work by the builder, the interior designer and the home systems installer.

"The weekly meetings conducted by the builder were key to having the technologies mesh so nicely with the design," relates Conklin. "Even just the modification to a wall or an adjustment of a piece of furniture would impact the appearance and the performance of the speakers, as well as the lighting system and the big-screen TVs." By knowing immediately of any changes to the house plans,

Grand Home Automation was able to not only deliver top-notch systems, but cut their design time significantly. "On a job of this caliber, we usually spend at least six months to put together a system plan," says Conklin, "but because we were given such well-documented plans by the builder and interior designer, we were able to have the Johnsons' systems designed in just three weeks."

## Casual Entertainment

Dedicated home theaters are glamorous, certainly. But for people who rarely watch TV, like the Johnsons, designing a room specifically for movies feels a bit superfluous. So rather than pack a huge screen into one room of the house, the couple decided to use two slightly smaller screens and locate them in the most popular rooms to create two casual yet still engaging viewing environments.

A 42-inch Pioneer high-definition plasma TV wedged perfectly into a piece of custom cabinetry serves up digital cable TV programs in an Irish-style pub, complete with poker table and wet bar. A plain old remote handles the TV adequately, but the Johnsons use a more sophisticated wall-mounted touchpanel to arrange the room's lights and music. From the 4-inch color AMX touchpanel near

The home systems installer divided the slots of a Marantz 300-disc CD changer into his and hers sections. One side of the player holds Toni's favorite CDs; the other, Bill's. Each side is accessible by pressing either TONI'S FAVORITES or BILL'S FAVORITES on any AMX touchpanel.

## DISAPPEARING SPEAKERS

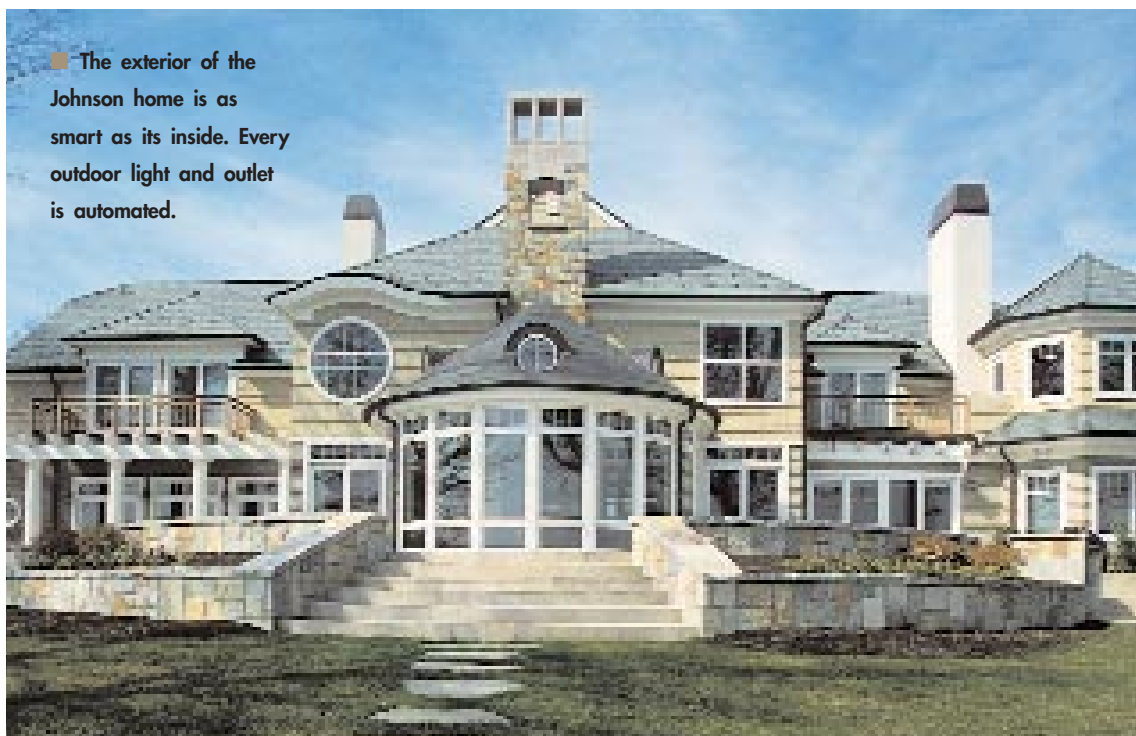
The SA2B speakers from Sound Advance are manufactured to hide behind plaster or wallpaper.

## COOL KEYS

Installed in most rooms of the house are Lutron seeTouch keypads. They light up so the homeowners can read the keys in the dark.

## FANTASTIC

By adding a small module to the Lutron HomeWorks lighting control system, the homeowners became able to operate ceiling fans from the same wall-mounted keypads that control the home's lights and music system.



■ The exterior of the Johnson home is as smart as its inside. Every outdoor light and outlet is automated.

Elegant lighting effects for the dining room are set by pressing buttons on a wall-mounted keypad (background).



SYSTEMS DESIGN

3 weeks

The Johnsons hired Grand Home Automation to create an electronic systems design for their new house. This included the creation of floorplans, as-built prints with the locations of all electronic equipment indicated, and wire lists.



ROUGH-IN

3-4 months

Grand Home Automation ran all the wiring for the lighting control system, mounted speaker brackets and installed other hardware that needed to go in before the drywall went up.



FINISH

6 months

During this phase Grand Home Automation and the Johnsons settled on engraving for the home's keypads. All speakers that needed to be painted were installed. Back at the Grand Home Automation office, the systems were programmed and equipment was ordered.



TRIM-OUT

1 month

The walls are up and painted and carpet is being installed. Meanwhile, Grand Home Automation is installing the audio and video gear and applying trim plates to the wall keypads. Programs are getting downloaded into the systems and are tweaked.

the bar they can cue one of several lighting scenes, including CARD GAME and BAR TV.

As for music, both Toni's and Bill's favorite radio stations, digital cable music stations, CDs and tunes stored on the electronic Yamaha Disklavier piano are presented on the touchpanel via quick, one-touch activation. Toni, who prefers light jazz, has her own favorites menu; Bill, who relaxes to talk radio, has his own favorites menu, too. One touch delivers music to the cozy pub from a stack of audio components that are stored elsewhere in the house. A quick tap keeps the music in the pub; holding the button for three seconds tells the system to spread the tunes throughout the entire house.

Music isn't the only form of audio the house speakers deliver, though. By pressing a button labeled MOVIE—this time on a portable wireless touchpanel—the Johnsons can instruct five Snell speakers and a Snell subwoofer in the media room to play a movie soundtrack instead of music. At the same time, a Marantz DVD player and a 61-inch high-definition

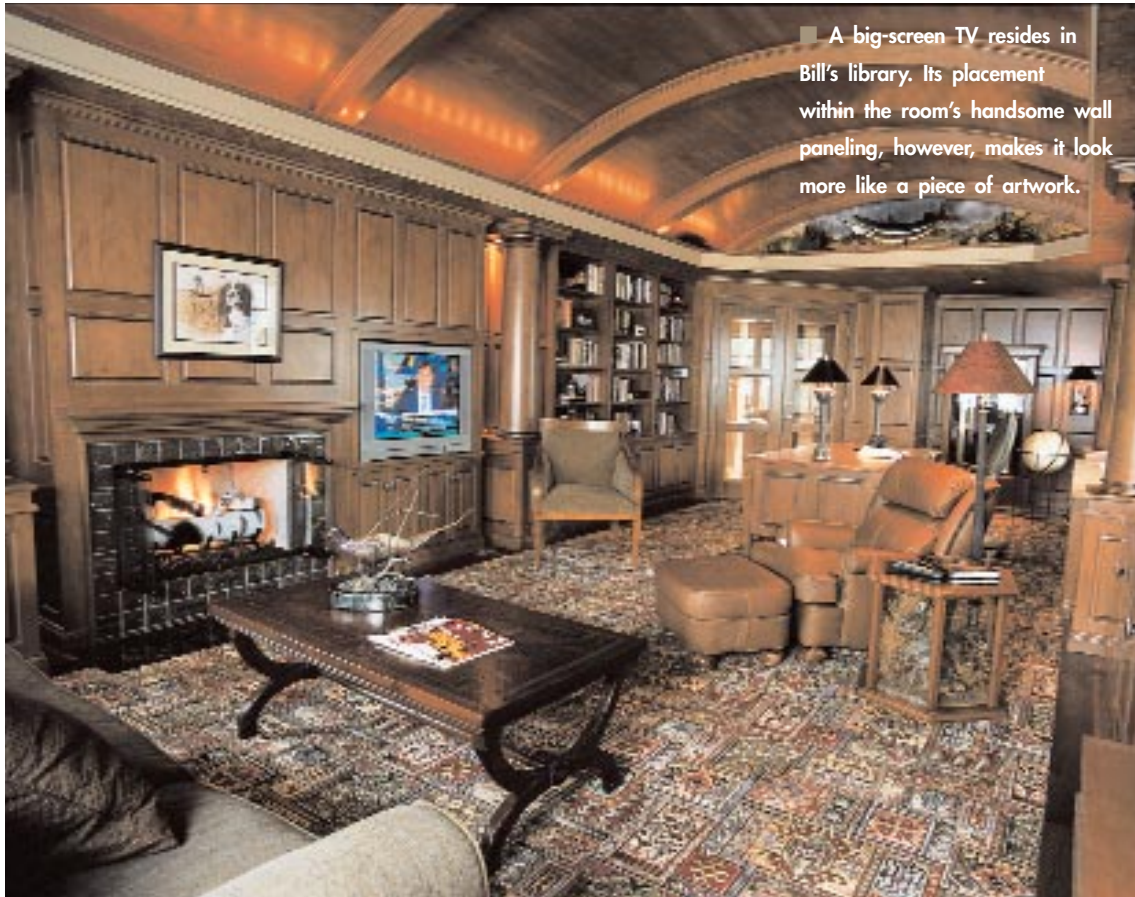
Marantz TV activate, and the room lights fade to black. In seconds, the room is ready to perform.

The sun plays an important part in the movie preparations, too. The Johnsons requested that the media room's windows remain uncovered to provide sunlight and a view of the lake. Consequently, the only time fading lights are noticeable is when it's dark outside. Toni or Bill can temporarily deactivate the room's lighting effects during daytime viewing by pressing a button on the touchpanel.

Dramatic Appearances

Nothing showcases a terrific piece of artwork or finely crafted architecture better than lights—and in this home, the lighting effects are over the top. Hundreds of fixtures, including wall sconces, tiny cove lights, stands of fiber-optic lights and standard tabletop lamps, are all choreographed by a single HomeWorks Interactive lighting control system from Lutron Electronics.

Mostly, the Johnsons utilize one of 42 elegant,



■ A big-screen TV resides in Bill's library. Its placement within the room's handsome wall paneling, however, makes it look more like a piece of artwork.



■ Because Bill and Toni Johnson spend a good deal of time in the kitchen, their home systems installation firm (Grand Home Automation, Grandville, MI) loaded it with technology, including special outlets that network a laptop to the home's other computers, a networked telephone, and a wall-mounted home control touchpanel.

custom-engraved Lutron keypads to cue a lighting scene, or one of six AMX touchpanels. Some scenes such as ENTERTAINING and GREETING affect the entire house, while others, like DINING and MOVIE, impact individual rooms. Still others like SNACK guide Toni and Bill from one room to another.

In the master bathroom, no keypads are needed at all. Instead, an inconspicuous motion sensor in the hallway triggers the bathroom lights when someone passes by—but only when the house is dark and in its GOODNIGHT mode. The same thing happens when anybody treads on the bottom step of the staircase. A tiny impact pad planted beneath the carpet signals the HomeWorks Interactive system to activate the stair lights for five minutes when the house is dark.

Outside, the HomeWorks system's internal timer takes over. The landscape lights switch on

twenty minutes before sunset, then turn off every night at 11:30. The system is also set up for the holidays. From November 20 to January 10, strands of lights plugged into any outdoor outlet activate one hour before sunset and switch off at 11:30. Coach lights attached to the exterior of the house follow a different routine, turning on only when the Johnsons press a GOODBYE or GREETING button.

## Finishing Touches

While Toni and Bill admit they rarely use computers, no modern house is complete without an infrastructure of high-speed wiring. Upgrading from standard copper telephone and video cabling added little to the cost of their home, but enables them to network Toni's computer in the upstairs loft to Bill's laptop in his library. Few peripherals clutter Bill's library, but he can still print documents and get online instantly, thanks to the USTec wiring network.

The home's Panasonic telephone system also helps the couple stay connected. The phones emit a special ring tone to signal a visitor at the door and turn into convenient intercom stations that allow the Johnsons to converse with a guest before opening the door. Similarly, pressing a particular extension number allows Bill and Toni to speak to each other while in different parts of the house. Back in phone mode, each telephone can receive calls on one of 12 incoming phone lines or transfer calls to one of 32 different telephone extensions.

## Keeping the Peace

In the end, the Johnson home is brimming with technology. More than 50 control keypads adorn the walls, dozens of speakers hang from the ceilings, and an infrastructure of high-speed cabling behind the walls zips music and instructions to lights, audio/video equipment, ceiling fans and a subfloor heating system. But more impressive is the imperceptible existence of all this technology. Although the brains behind each keypad are sophisticated enough to control an apartment complex, they are as easy to use as a light switch and look remarkably low-tech. Their ability to work in harmony with their surroundings is due in large part to the close communications between the homeowners, their interior designer and their builder, and their home systems installer. **EH**