



■ Entertainment and information are at your fingertips when a house is properly wired.

systems every home needs

by Lisa Montgomery

THERE ARE NUMEROUS TYPES OF TECHNOLOGIES AND SYSTEMS YOU CAN CHOOSE to add to a new home. Some are relatively simple to design and install into a home; others are more complex. Some cost an arm and a leg; others cost no more than a case of soda. Of course, electronic components like TVs, computers and stereos are probably on your must-have list. But that's just the beginning. There are many other systems that you should consider just as seriously. They offer a host of benefits and luxuries you've probably never experienced before.

HIGHLIGHTS

- The key features of five core home electronic systems.
- Reasons why your home needs them.
- How to get them installed into your house now.



■ A networking system links the equipment in a home office with other computers in the house.

Networking System

We've all heard about the information bottlenecks that occur over the Internet. Broadband Internet access supports faster connections and downloads, but your home will also need high-speed wire—and lots of it—to take full advantage of broadband.

WHAT IT DOES Old-fashioned homes have old-fashioned telephone and coaxial (cable TV) wire. That wire still works, but when information from the Internet hits that wire, it slows down.

When that same information is introduced to high-speed communications wire (commonly called Category 5 wire), it maintains its speed for nearly instantaneous Internet connections and downloads that aren't such a drag.

The benefits of high-speed networking broadband exponentially with each computer in the house. Any computer that's plugged into a Category 5 wall jack can share the same Internet experience—all at

the same time. Files, games and other information can be shared between the computers as well.

Most networking systems can also function as businesslike telephone systems and as video distribution systems. On the telephone side, this means that any telephone can answer calls coming in on any telephone line. On the video side, a networking system can distribute video from a security camera, a DVD player, a satellite receiver or any other video source to every TV in the house.

A high-speed networking system is basically made up of Category 5 (or better) communications wire and RG-6 (or better) coaxial wiring, wall outlets that enable components to plug into the wire, and a dedicated location (called a hub) for the wiring to meet.

GETTING IT INTO YOUR HOUSE

After a consultation with either the builder's own home systems subcontractor or one you've hired yourself, you'll have to decide what kinds of

functions the networking system should support, which rooms should be outfitted with special multimedia outlets (any components plugged into them join the network), and how many outlets per room. The wiring and outlets are relatively inexpensive, so ask for at least two outlets in every major room of the house; one in each bathroom, short hallway, and small sitting area.

Home Control System

A home control system affords you and your family a nearly effortless way to manage everything from the lights to the lawn sprinklers. Driven by a sophisticated microprocessor, a home control system can be designed and programmed precisely to your needs by integrating the control of a security system, a lighting system, a heating/cooling system, an irrigation system, a whole-house music system and more.

WHAT IT DOES Even “simple” chores like locking up the house for the night, setting back the thermostats before you leave for work, and shutting all the draperies take up a lot of time and are easy to forget. A home control system takes care of these and many other tasks for you, adding a new level of efficiency to your lifestyle.

The real beauty of a home control system is how easy it is to put these tasks in motion. Depending on how the home systems installer sets it up, you can transmit a series of commands simultaneously to various pieces of electronic equipment with the press of a single button. Or, you can have the system dispatch the commands automatically, based on the time of day or some other condition.

Home control systems come in a variety of forms, mostly defined by the type of “interface” they employ. Some systems utilize a tactile-button keypad to send commands to a predefined set of elec-

tronic components. Other, more expensive systems employ a touchpanel that actively displays virtual buttons and menus on a touch-sensitive screen.

GETTING IT INTO YOUR HOUSE If you think you’d like your new house to have more than two systems—say a lighting control system, a whole-house music system and a video distribution system—then it’s probably wise to place all three under the aegis of a single control system. This means you can typically hire one firm—one that specializes in systems integration—to get the systems installed and working cohesively together.

Multiroom Music System

Visit a model home of any custom homebuilder these days, and you’ll likely hear a multiroom music system. You’ll know the home has one when music magically follows you as you stroll from room to



■ Every room of a house is connected through a structured wiring system.

room. Remarkably, there are no black boxes in sight. The ability to blend with, if not disappear into, the décor of a house is one of the most appealing features of a multiroom music system.

WHAT IT DOES There's a reason your dentist pipes music into the examination room. Soft music relaxes away tension and soothes aches and pains. Conversely, the lively music that drifts into the more urbane stores of a shopping mall is intended to keep you in the racks just long enough to buy something. The same goes for your home.

With music in all the right spots—the family room, the kitchen, and the master bedroom—you feel, well, right at home. Not only that, you'll be able to get in the mood—whatever that might be—quicker than you did without a music system.

The system transmits music from a single stereo system to speakers placed in key locations throughout the house. You control the volume and select the music from a wall-mounted keypad.

Multiroom music systems come in two basic forms: One is a type that delivers the same music to all speakers, known as a single-zone system; the other, more sophisticated type, known as a multi-zone, multisource system, is able to transmit different music simultaneously to different zones.

GETTING IT INTO YOUR HOUSE Inform your architect about your desire for a multiroom music system. That way, he can design a dedicated listening room into the plans, if it fits into your budget. Or he might add into the plans a small closet to store the equipment of a whole-house music system.

Also get an audio specialist/home systems installer on board early. Together, you'll identify the rooms and spaces that will need speakers.

Lighting Control System

Did you know that your home's lights can do more than simply turn on and off? When governed by the right set of smart devices, they can brighten and dim automatically, deter intruders, comfort a crying child, accentuate the architecture of your home, and set the mood for a special occasion—all with remarkably little effort on your part.



WHAT IT DOES One of the key benefits of a lighting control system is convenience. For example, you can turn off every single light in and around the house simply by touching a button by your bed. If you forget, the system can do the same at midnight. When light fixtures switch on and off automatically, you're bound to save energy—and money.

Granted, some technologies can look sorely out of place in a home that's nicely decorated. A lighting control system, though, can make a good-looking home appear even better by dramatically diminishing "wall clutter." This is a catchphrase in the electronics industry that refers to the overabundance of switches and buttons that commonly blan-

■ Enjoy music everywhere by having a whole-house music system installed into your home; control it conveniently from a wall-mounted keypad.

■ Before: Setting the light fixtures in a room used to require the manipulation of several independent light switches. After: By using a lighting control system, every light can be brightened or dimmed simultaneously through the press of one button.



PHOTO COURTESY OF LITETOUCH

ket the walls of a house. A lighting control system consolidates every light switch into a few elegant keypads.

Most families like to “feel” a certain way in their homes. And that changes with the occasion. For example, during a party you probably like to convey a mood that’s much different from when you’re home alone reading the newspaper. A carefully crafted lighting control system can help the house achieve the appropriate ambiance for all types of activities.

There are two types of lighting control systems: one that choreographs the setting of the light fixtures within a single room only, and one that controls the settings of fixtures throughout the entire house. In the short term, a single-room system might be more affordable, but once you realize its many benefits you’ll probably want the same level of control for every room of the house. In other words, although it may cost more up front, it’s usually wiser to buy a whole-house lighting control system.

GETTING IT INTO YOUR HOUSE Call a home systems installer soon after you’ve found an architect and builder. Naturally, the home systems installer should have experience designing and installing lighting control systems. Some don’t, so be sure to ask.

If creating an ambiance and highlighting key architectural features of your new home are priorities, also contact a lighting designer. This professional works hand-in-hand with the home systems installer to achieve eye-catching effects.

Security System

For years, security systems have protected our homes and families from burglaries and fire, giving us comfort and peace of mind. While security systems still protect homes admirably, they have matured tremendously over the years to offer a host of other benefits. They can now turn lights on and off, readjust a home’s thermostats, and alert your pager or cellphone to

any suspicious activity, including not only break-ins and fire, but also water leaks and drastic drops in the indoor temperature.

WHAT IT DOES Although security systems can perform a variety of tasks now, manufacturers haven't skimped on their products' abilities to fully protect a home. Sensors that detect the opening of a door or window and motion inside or outside the house are more sensitive than ever, and the system's ability to respond is faster and more efficient. A professionally installed security system can also respond to other types of conditions that can damage a home, such a dramatic drop in a home's temperature or a leaky pipe.

Most break-ins and other home emergencies happen when nobody is home. That's why many security systems include a dial-out feature that transmits an alert message automatically to a series of phone numbers. Plus you can call in whenever you like to hear a status report and visually inspect your house and make adjustments from a secure "home security" Web site.

Security systems vary dramatically in their capabilities, and price is usually a good indicator of the better system. A \$99 system, for example, might come with just a handful of door and window sensors—not nearly enough to fully protect a large home. A \$3,000 system, by contrast, will probably include more than enough sensors, plus the ability to operate a home's heating/cooling system, its lights, and other devices.



GETTING IT INTO YOUR HOUSE See if your homebuilder offers a security package. If he does, determine exactly what the package includes—number of sensors, remote monitoring capabilities, and 24-hour monitoring service from a professional monitoring station are a few key items. If the package seems a little skimpy, ask for something beefier. In most cases, the builder's security contractor will be happy to oblige—for a fee, of course.

A home that's equipped with a few or all of these six systems is not only convenient, but will be comfortable and enjoyable to live in for years to come. Sure, new technologies are bound to come around, but these core elements will ensure that your house is always on the cutting edge. **EH**

■ Security systems do more than watch for burglaries and fire. Some can also control a home's lights and thermostat, and store messages.

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