

Home Control

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Home Control Overview

Separately, a lighting control system, a smart climate control system, a security system and other systems afford convenience, comfort and luxury to any new home. But it's when these and other systems operate synchronously that the benefits of living in a smart home make an enormous impact. United under a common control system (a home control system), independent "subsystems" can alter the atmosphere of the entire house with one press of a button. For example, a HOME button on a home control keypad could be programmed to brighten certain lights, bump up the thermostats, disarm the security system and cue the whole-house music system. Accomplishing this same scenario without the help of a home control system would require at least a half-dozen button presses.

Also helpful is a home control system's ability to automate certain tasks. For example, when a home control system receives a disarm signal from a security system, recognizes that it's 4 p.m., and knows by the code punched into the security keypad that your kids have returned home from school, it can set up the house accordingly-perhaps keeping all the windows armed and turning on the kitchen lights. Different conditions might enact different scenarios.

Planning Issues

What You Need to Consider

- **The Wiring:** Some home control systems communicate with subsystems via standard electrical wiring; others communicate over dedicated low-voltage cabling. Those that utilize electrical wiring, called powerline-based systems, are less expensive and usually easier to install. However, they are often less reliable and less intelligent than low-voltage-based home control systems. For example, you may not be able to integrate the dimming of lights and the control of audio/video equipment into the control sequences of an inexpensive home control system. The sophistication of the subsystems and the level of automation you desire may require the horsepower of a low-voltage home control system (a security system or lighting control system can often perform as a home control system).

- **The Keypads:** No matter how well a home control system performs, if it's too difficult to operate, you'll never enjoy all of its features. Think long and hard about what kinds of devices you'd like to use to interact with the subsystems of a home control system. Touchscreens are expensive, but are usually the most intuitive to use (similar to using an ATM); keypads are more affordable, but might be a good choice as a secondary means of control. Web tablets, PDAs, telephones, and remote controls can also be used to issue commands to a home control system.

- **Automation:** A home control system's claim to fame is its ability to automate certain functions of a home. However, there is a fine line between automation that's sensible and automation that's way over the top. A professional home systems installer can configure a home control system to automate the filter of a fish tank, a radiant floor heating system, an electronic pet door-just about anything. Overdo it, and your home may feel more like a laboratory than a comfortable retreat. Automate only functions that are part of your ordinary daily routine, like turning lights on and off, locking up the house, playing music, and watching movies, for example.

- **A Headend:** The process of each subsystem connects to the central processing unit of a home control system via wire. Dedicate a space inside your home's basement in which to house these critical pieces of equipment.

Add-Ons

A home control system is an extremely useful tool for managing the house while you're away at work or vacation. And there's no better way to monitor the systems of your new home and alter them than through the Internet. A number of home control systems are now accessible through the Web. By entering a personal and secure Web site, you can view the status of subsystems connected to the home control system—things like lights, thermostats and security sensors. Then, with the click of a mouse, change their settings remotely. To make your Internet sessions with your home system as convenient as possible, subscribe to a high-speed, broadband Internet service.

Installation Issues

Your Builder, Your Home Systems Installer, Your Electrician, Your Interior Designer

Depending on what tasks you want a home control system to handle, its installation and design can impact every single subcontractor involved in the construction of your home. This, of course, means that your builder should be notified early on (before the blueprints are drawn) of your intentions. First and foremost, your builder will need to construct a central area in the basement in which to house the processors of the home control system and its connected subsystems. A 12-square-foot area should suffice for a 4,000-square-foot home.

Inside this equipment closet your electrician should install a sufficient number of electrical outlets, as well as plenty of surge suppression to protect the gear.

Because the current that travels over electrical wiring can interfere with the signals that pass over low-voltage cabling, it's essential that your home systems installer and your electrician share their wiring plans. If necessary, they can modify the paths of their wiring slightly to accommodate each other.

A home systems installer will mount keypads and touchscreens into the walls of your home. It's important to decide early on what kinds of keypads and/or touchscreens you'll be using, so that the appropriate-sized hole can be cut into the wall. Ideally, situate a keypad and/or touchscreen at the entrance of each main room of the house (kitchen, foyer, family room, master bedroom).

A variety of sensors can trigger routines of a home control system. An occupancy sensor, for example, can elicit a routine that turns on the room lights, adjusts the temperature and cues the stereo system. Together, an outdoor temperature sensor and a light (photocell) sensor can trip a scene that shuts the motorized drapes, raises the thermostats, and turns on the exterior light fixtures. Placement is the key to any sensor's accuracy; your builder, landscaper and interior designer should know where these sensors reside, so that no obstructions (furniture, trees, or parts of the house) will interfere. At the same time, the builder, landscaper and interior designer can help render these sensors less conspicuous through special construction and design techniques.

PDA's

Home control in the palm of your hand

There's no reason your home should go unattended just because you're at work, on the road, or on vacation. In fact, time away from home is typically the best time to actively manage the thermostats, lights and other electronic equipment for your home.

Thank goodness, most home control systems can be accessed remotely. If the system can be accessed by logging onto a private Internet site, you might even be able to use your PDA to control your house from afar. If that feels comfortable, you might consider also using the PDA as a tool for controlling the house while you're at home.

Most likely, the in-home PDA will not connect to devices via the Internet. Logging onto the Internet to control a device that's 10 feet away simply doesn't make sense. What does make sense is loading special home control software into the brains of your PDA so that the connection between the PDA and the home is seamless. Some manufacturers of home control systems now offer software for PDA's. **5 Things to Consider-Home Control** Putting together the perfect Electronic House? Here are 5 things you want to think about...

- Wall-mounted controls
- Incorporate security, lighting, audio and video
- A whole-house touchpanel remote
- A touchpad with video and Web capabilities
- Remote access via the Internet

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Home Control FAQs

- What's better—hard buttons or a touchscreen?

You tell us. This really depends on personal preference. If you are the type that likes to feel like you are pressing something, go with hard buttons. However, there are a lot of touchscreens that can offer more than just control. For instance, some even allow you to view video from your home entertainment or security systems. Many of them also have on-screen buttons for those of you that like the other option.

- Do I need to incorporate all of my systems on one remote?

With all of today's technology, it's possible to have more remotes than you could possibly fit on a coffee table. Some people choose to have a home controller, but keep their audio/video separate, and so on. However, for those of you that are tired for searching and figuring out what controls what, a whole-house remote gives you easy one-touch access to everything in the house.

- Can video be part of my home control system?

Sure it can-and it's cool as well! Many newer touchscreens offer video features right on the controller, whether it's wall-mounted or handheld. This is great if you get called away in the middle of a movie, or just if you want to peek in on your security cameras to see who may be lurking outside or just want to see what the kids are up to.