Home Theater FOR DUMMIES®

3RD EDITION

by Danny Briere and Pat Hurley

Wiley Publishing, Inc.

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About the Authors

Danny Briere founded TeleChoice, Inc., a telecommunications consulting company, in 1985 and now serves as CEO of the company. Widely known throughout the telecommunications and networking industry, Danny has written more than 1,000 articles about telecommunications topics and has authored or edited eight books, including *Wireless Home Networking For Dummies,* 3rd Edition, and *Smart Homes For Dummies,* 3rd Edition. He is frequently quoted by leading publications on telecommunications and technology topics and can often be seen on major TV networks providing analysis on the latest communications news and breakthroughs. Danny lives in Mansfield Center, Connecticut with his wife and four children.

Pat Hurley is Director of Research for TeleChoice, Inc. specializing in emerging telecommunications and digital home technologies, particularly all the latest consumer electronics and access gear, including wireless LANs, DSL, cable modems, satellite services, and home-networking services. Pat frequently consults with the leading telecommunications carriers, equipment vendors, consumer goods manufacturers, and other players in the telecommunications and consumer electronics industries. Pat is the coauthor of *Smart Homes For Dummies,* 3rd Edition, *Wireless Home Networking For Dummies,* 3rd Edition, *Wireless Network Hacks and Mods For Dummies,* and *Windows XP Media Center Edition 2004 PC For Dummies*. He lives in San Diego, California with his wife, a fiery red-headed preschooler named Annabel, and two smelly dogs.

Dedication

Danny wants to thank his wife, Holly, and kids, who have endured their home theater being the test bed for just about every new technology known to mankind. They've had to learn the intricacies of beta testing everything from remarkably exciting motion-controlled TV to sadly disappointing Apple TV test gear. When their friends ask how to turn things on, the response is usually prefaced by, "Well, this week . . ." However, they also get to appreciate true breakthroughs, such as when they moved to RF control and no longer had to point in a certain direction to get something to happen. Ah, the good life! To all of them, thanks for their perseverance.

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Introduction

The onscreen image looks crisp and sharp, like a huge moving photograph. You feel entranced. More to the point, you feel the immediate urge to own this video projector, provided it works with the DVD player and the rest of your fledgling home theater gear.

An enthusiastic salesperson sees your look and enters the demonstration room. "It's really beautiful," the salesperson proclaims. "That's the 50-inch plasma unit that works in true 1080p at 16:9. Yup, she's a dream."

Moments like that make you wish that people came with a pause button — or at least an instant replay and color commentary.

For all the fun they bring and the good times they facilitate, home theaters (and their sundry technologies) come with a bewildering blizzard of terms and acronyms. Worse yet, it seems like everybody involved with the industry either knows what the terms mean but can't explain them or has no clue about the true meanings but spouts the terms anyway. And neither of those cases helps *you* make any sense of the whole thing.

That's where the new and greatly improved third edition of *Home Theater For Dummies* makes its heroic entrance. (We'd cue up a low fog, some dramatic lighting, and that mysterious "something cool might happen anytime now" music to enhance the moment, but there's only so much you can do in a book.) Even without the special effects, this book still rescues you from all kinds of home theater perils. Read on to find out how.

About This Book

The book takes you through the world of home theater from the bottom to the top. Starting with a broad look at the basics of home theater concepts and technology, *Home Theater For Dummies* presses onward with more detailed information about source devices, surround-sound gear, video display equipment, and PCs. The book even advises you about the theater room itself, giving guidance about everything from furniture to popcorn machines.

Best of all, this book delivers the information in the friendly, patient, and easy-to-understand manner that you know and expect from a title in the *For Dummies* line.

Get ready for one of the most enjoyable trips of your life. With this book at your side, you're ready for anything and everything that the industry (and those questionable salespeople at the local equipment store) can throw at you.

Conventions Used in This Book

Unlike its famous and prolific computer-oriented brethren, *Home Theater For Dummies* keeps things pretty simple in the conventions department. We use just a single bit of textual oddness that relates to Web sites. Any time we talk about a Web address, you see the site address formatted in a special font, like this: `www.dummies.com`.

Why? For one thing, the font makes the text stand out so that you know exactly what to type into your browser. (Besides, we think the production department got a special deal on that font, so they just like seeing it in the books as much as possible.)

Just the (Techie) Facts, Ma'am

Although everything in the book meets rigorous standards for comprehension, usability, and lack of pointless geekiness, a few technical tidbits slipped in accidentally. Well, they didn't slip in accidentally; we wrote them that way.

At some point in the home theater process, you come face to face with technical tripe whether you want to or not. It's better that you hear this stuff from us than from some name-tagged know-it-all on a sales floor.

Foolish Assumptions

To write this book, we had to spend a lot of time in malls, video stores, and movie theaters (that's the hard part) doing "research." While doing so, we pondered all kinds of questions concerning you, the reader. Who are you? Where are you? What did you eat for lunch? Which movies pique your interest? How do your home theater desires line up with your budget? Queries like that fill our minds constantly, much to the consternation of our spouses, who prefer more useful thoughts like, "Shouldn't you take out the trash?"

Because we never get to meet you in person, we end up making a few assumptions about you and what you want from this book. Here's a peek at our thoughts about you:

- You love movies, television shows, or video games — or perhaps all three.
- You've experienced wide screens and surround sound at the theater, and you liked it.
- For one reason or another, a 19-inch TV set with a single built-in speaker doesn't adequately meet your audio or video entertainment desires.
- You probably own a computer or will soon.
- You don't shy away from high-tech products, but you also aren't the first person on the block with the latest electronic goodie.
- You've heard a lot about digital TV (and the impending *digital TV transition*), and though it gives you a vaguely uneasy feeling, you know that you need to know more about it.
- The weird technicalities of home theater circle around you like planes buzzing King Kong.
- You know something about the Internet and the Web and probably have high-speed access to the Internet or will soon.
- You (or someone in your family) enjoy watching movies, listening to MP3 audio, playing games, and possibly making movies on your computer.

If that describes you in detail or at least catches some of your shadow in passing, this book is for you.

How This Book Is Organized

Rather than haphazardly fling information at you and hope that some of it sticks, we clump related topics together into six parts. Here's a peek at what they cover.

Part 1: Welcome to the World of Home Theater

With home theater, the trek begins here, in Part I, which covers the basics of the basics, starting with a look at what home theater really means, includes, requires, and offers. From there, it looks at what it takes to get into a home theater, in terms of space, timing, budget, and equipment. In Chapter 4, we get a little techie, but necessarily so, by giving you some solid insight into the terms and technologies that you will encounter. More and more, terms such as DLP, 3LCD, and HDMI are on the shelf description tags when you go to Best Buy. You need this baseline knowledge for the rest of the book, so read Chapter 4 closely. In fact, read it twice. (It's even better the second time around.)

Part II: Getting Video and Music into Your Theater: Source Devices

Home theater installations really contain two parts: source and presentation. Part II covers all kinds of sources, ranging from the prerecorded offerings of DVD players and VCRs to the over-the-air-and-through-the-sky action of broadcast TV and satellite dishes. As a bonus, this part even takes you on a tour of the personal video recorder (PVR), possibly the most groundbreaking entertainment device since the VCR itself, as well as state-of-the-art gaming platforms. (Pat performed that excruciating gaming research.) We also talk about your PC and the growing role it plays in sourcing audio, video, gaming, and other content for your system. To top that, we then tell you all you need to know about accessing the Internet for cool things like finding that episode of *Lost* that you missed.

Part III: Watching and Listening: Display and Control Devices

Part III focuses on the control and presentation aspects of your system, with in-depth looks at your receivers, controllers, speakers, and video displays. We look at all-in-one receivers and separates, such as controllers and power amps. On the video side, this part explores the strange world of television sets (which looked pretty simple until a few years ago when HDTV arrived on the scene) and video projection systems, which are home theater's answer to the movie house's silver screen and are becoming so affordable we think you'll get one just so you can watch the Super Bowl on a 12-foot screen! Then, all eyes — er, ears — turn to audio for details about surround-sound systems, speakers, and more. Finally, we talk about remote controls — an often overlooked area that deserves more attention. A remote control is your single biggest interface to the system, so we give you some options here.

Part IV: Putting It All Together

With your location selected, your gear picked out, and your walls trembling in fear, it's time to install your theater, and Part IV guides you through the process. In fact, hooking up your home theater is one of the harder parts of the experience. We start with the basics — the different types of cabling — and work our way up to connecting all the components into a working system. Toward the end of Part IV, we give you advice on how to link your home entertainment system to other TVs and systems in the house. After all, you paid a lot of money for your theater — why not get the most use from it that you can?

Part V: Letting Your Home Theater Be All It Can Be

You might think that your home theater equipment is out-of-the-box ready to be plugged together and to start playing movies, but it's not that simple. Almost every part of your system needs to be tuned like a nice grand piano. Although we use big words and phrases such as *calibration* and *bass management* in this part, these merely relate to fine-tuning your system to itself and its environs. We also give you ideas for sprucing up your home theater with fancy lights and soundproofing (the latter of which is great for those late-night sleepovers the kids have). We tell you how to access your home theater content from your car as well as from your cell phone (very cool) and laptop when out and about. We end the part with a cool look at the higher end of home theater — the things you can dream about during those long trips to Grandma's.

Part VI: The Part of Tens

Like all other *For Dummies* books, *Home Theater For Dummies* closes with a look at life from the humorous side with perky Part VI, the Part of Tens. Each chapter counts off a bunch of goodies that help you show off, troubleshoot, and generally accessorize your theater.

Icons Used in This Book

A lot of stuff is in here, and amidst all that material, the important details can sometimes be overlooked. To point out the important stuff (and highlight the technicalities you might want to avoid), the book relies on several helpful icons. Each icon identifies a particular type of information. Here's a quick field guide to what each of these little billboards means.

Whenever you see the Remember icon, grab a handy mental highlighter (and maybe a real one, too) and mark the section because this information might come in handy at any moment, either now or in the future.

Everybody looks for tips (particularly in the stock market, the race track, and at your favorite restaurant). When a Tip icon shows up in *Home Theater For Dummies,* it points out information destined to simplify your life. You can't go wrong with a Tip!

When a topic includes technology, technical tripe always finds its way into the book. At some point or another in the home theater experience, you need to know the geek-speak. Don't fear paragraphs with these icons, but don't rush to them, either. Just brace yourself for the technical onslaught, secure in the knowledge that this book protects you from the worst of the techno-drivel.

Nothing in your home theater really threatens personal peril — at least no more peril than you get from plugging in a toaster or accidentally watching a bad movie at your local theater. In those rare moments when inserting the right plug in the wrong socket could spell doom for your gear, the Warning icon hops into action. When you see one of these, stop for a moment, read the text, and double-check your progress before continuing.

Where to Go from Here

Apart from the pleasing shade of yellow on the cover, the best part of a *For Dummies* book is its open and available layout — you can start anywhere you want. If you already know the stuff in Chapter 1, dive in somewhere else instead. Where you start and what you read depends entirely on what you need to know right now.

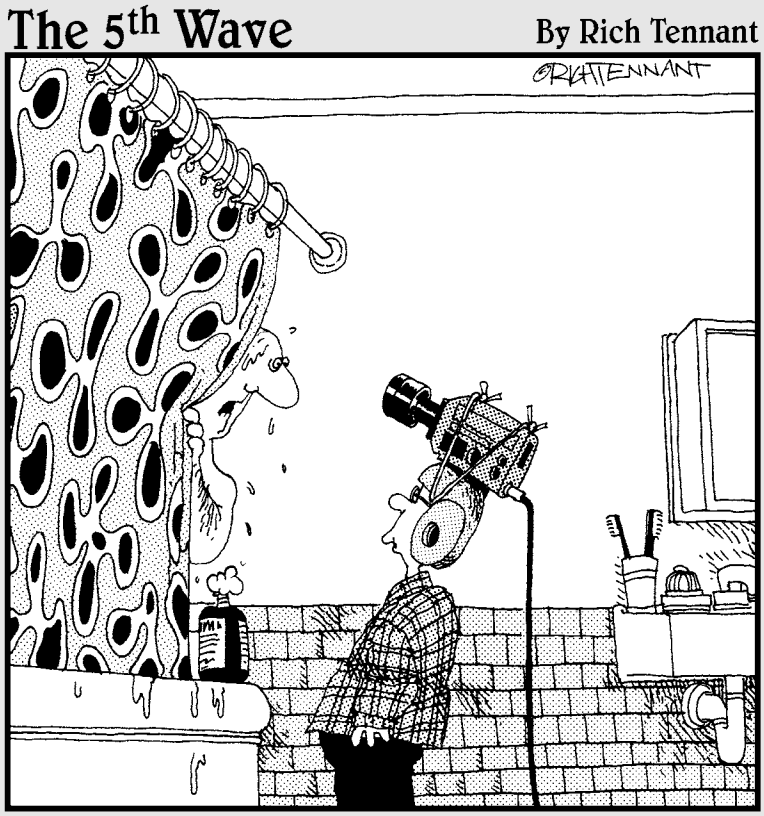
Read over the Table of Contents to see whether any topics jump out at you. If nothing does, try finding a starting point in one of these:

- If you're a newcomer to home theaters, start in Chapter 1. It gives you a good overview of how a home theater works, what it takes to put one together, and what your next steps are if you want to build one.
- Curious about the content — the movies and shows — appearing in your theater? Part II delves into DVD and VHS, plus satellite, broadcast, and cable TV. It even peers into the promising realm of personal video recorders (the TiVo is a good example) and PC-driven content.
- For an in-depth look at the sound and video presentation side of your entertainment empire, visit the chapters of Part III.
- For help getting your system connected and tweaked for the finest audio and video quality, skip on over to Part IV.

With that, leap into the world of home theater. Lights, camera, action — welcome to your adventure!

Part I

Welcome to the World of Home Theater



"I don't care how good it will look on the 60" plasma display."

In this part . . .

It's important to start your adventure with some solid basics — what's a home theater, why do you want one, and what do all the various terms mean?

Part I lays a foundation for talking about home theater. An understanding of all your options helps you not only on the showroom floor, but also when the time comes to install your gear and tune it so that it does what it was intended to do. Indeed, a lot of home theater setup is about making sure that your system is configured correctly for your environment, and to do that, you need to know what the system is supposed to be doing in the first place. (We're sure there's some pithy phrase, like "the cart before the horse," to throw in, but we never use those correctly. So insert a phrase of your choice here.)

We follow up with some high-level basics about your home theater and its environment. We discuss where to put a home theater in your house and how to control it. We also delve into that hot topic — price. Then we walk you through all the things that make up the home theater at a high level — sources, outputs, PCs, cables, broadband, and so on.

And finally, we go a little deeper into the key terms, standards, and technologies that we use throughout the book. Here's where we talk about a lot of the things that probably got you to buy this book in the first place — the alphabet soup of home theater.

After you finish this part, you'll know enough to be dangerous in your local electronics store. (So be sure to read the rest of the book, too, so that you know how to control your now dangerous mind.)

Chapter 1

The Zen of Home Theater

In This Chapter

- Going Hollywood with home theater
- Finding room for a home theater
- Getting a stylish home theater on a budget
- Getting your money's worth

When you hear the term *home theater,* you probably think of big screens, cool sound, DVDs, CDs, and lots of remote controls sitting around your living room. We're sure that football games, beer, and other fun images sneak into that image as well.

Home theater is truly for everyone — regardless of the size of your house or apartment, your economic wealth, or your taste in movies. And home theater is bound to mean something different to everyone. It's not just about the gear — boxes, cables, remotes, DVDs, CDs, iPods, whatever. It's really about embarking on what can be a great adventure.

Appreciating the Art of the Home Theater

Before you start on your home theater adventure, it's critical to understand what the makers of the equipment, movies, standards, audio CDs, and so on mean when they say that they support home theater.

To the companies that produce the equipment and media, home theater is all about trying to recreate — in your home — the experience of watching a film in a movie theater, hearing the cheers of the crowd in a football stadium, or feeling the reverberations of music at an open-air concert. Many of the people who devote themselves to creating atmosphere and mood using this medium consider what they do to be an art form. These are usually the people who are listed in the credits at the end of a movie.

When you take all the sensations of a movie theater and insert them in your living room, you're on your way to successfully recreating that immersive feeling you get at the movies. All the improvements in sound compression, surround sound, digital screen imaging, and more have been done not to sell more equipment at Circuit City or Wal-Mart but to try to perfect the ability to draw you into another world where you can experience a truly creative piece of work.

So a lot of this book is about explaining the technologies and ideas behind the home theater that you are going to put together, because it's not just about seven speakers hooked into your stereo or a big honking TV screen. It's about how to make sure everything is put in its proper place to maximize your home theater out-of-body experience — the way the media creators intended.

Fitting Home Theater's Many Faces into All Kinds of Spaces

You've probably watched enough TV shows and movies about Hollywood and the rich and famous to know that, for some people, home theaters are as common as a kitchen or a bedroom. Indeed, home theaters were spawned from the necessity of filmmakers to preview footage, screen tests, and full movies. They gradually grew to be a status symbol among actors, too, and spread out from there.

In those early days, a home theater was pretty much literally that: a small theater with Peerless Magnarc carbon-arc lamphouses and theater seating. They were often extensive and elaborate affairs — to match the surrounding house.

Today, you too can get into the act, and you're lucky enough to have a broad range of projectors, screens, displays, seating, and equipment — heck, even popcorn machines — available to create your own home theater.

Probably the first big decision you have to make is where you want to put your home theater. It's one thing to figure out where to put your 19-inch TV set; it's another thing to think about where to put a big-screen TV with six (or more) speakers and associated A/V gear. Few people are prepared for how overpowering a full home theater setup can be in a small home, so it's especially important to plan if you have limited space.

Defining your home theater space is a necessary first step. If the only place to put a TV is on the mantle above the fireplace, you're looking at a flat-panel (plasma or LCD) TV and not much else. If you have to fit the whole system into the corner of the living room, that narrows the search as well. Remember, you don't want to buy a home theater that just won't fit into your home and

your lifestyle. A home theater is all about creating a theatrical atmosphere, so choose your spaces and work from there.

You can most certainly put a home theater in your present living room, your bedroom, or a room devoted to your theater. In the end, what matters is not so much the size but the way you establish the room's ability to coax you into its sound field and video experience.

Budgeting for Home Theater

We believe in setting expectations. We don't want to get you salivating over a 52-inch LCD and a nice Harman Kardon system and then smack you over the head with an unrealistic price. Unfortunately, a quick stroll through any consumer electronics store could lead you to believe that you can get all you need in an entry-level home-theater-in-a-box (without the video display) for just $199. However, that $199 system will be right for some people and not for others.

Exploring equipment and prices

So what does it cost to get into a home theater system? Table 1-1 gives you an idea of what you can spend. We've broken this table down by the roles that each group of audio/video (A/V) components plays in your home theater. (*Audio* sources are devices that provide audio-only playback in your system, whereas *video* sources provide movies or TV content.) The A/V system provides the control for your home theater (meaning it lets you select what you want to watch or listen to) and does all the heavy lifting in terms of sending surround-sound signals to your speaker system. The video display, of course, is what you watch (think TV). We've also included some optional components — gaming systems and home theater PCs (which let you use a PC as a high-quality audio source device, or video source device, or both).

Table 1-1 Home Theater Budget Guide

Role	*Device*	*Price Expectations*
Audio sources	Audio cassette player*	$50 to $250
	CD player/recorder*	$50 to $600+
	Turntable*	$100 to $5,000+ (really!)
	AM/FM tuner*	$200 to $1,000
	Satellite radio tuner	$75 to $300

(continued)

Table 1-1 ***(continued)***

Role	*Device*	*Price Expectations*
Video sources	DVD player	$50 to $1,200+
	Blu-ray disc player	$300+
	VCR*	$50 to $300
	Personal video recorder*	$0 to $700 ($0 "payment" when leased as part of a service)
	Satellite TV receiver*	$0 to $500
Computer/gaming	Gaming console*	$100 to $400
	Home theater PC*	$800+
A/V system**	All-in-one systems	$200 to $3,000+
	A/V receiver	$200 to $4,000
	Controller/decoder	$800 to $5,000+
	Power amplifier	$500+
Speakers	Center, left, right, and surround speakers	$150 to $10,000+
	Additional surround-sound speakers*	$100 to $5,000+
	Subwoofer speakers	$150 to $5,000+
Video display***	Up to 73-inch rear-projection TV	$1,000 to $4,000
	Up to 120-inch front-projection TV	$1,000 to $15,000+
	32- to 60-inch plasma or LCD flat-panel TV	$500 to $10,000+
Portables	Portable MP3 player*	$50 to $350
	Portable video player*	$100 to $500
Car system	Car PC*	$800 to $2,000
Accessories	Speaker and A/V interconnection cables	$50 to $1,000+
	Surge suppressor/ power conditioner	$20 to $1,500
	Home media server*	$1,000+
	Internet media access devices*	$100+

** Optional.*
*** You don't need all of these parts, just an all-in-one system, an A/V receiver, or a controller/ decoder and power amplifier combo.*
**** You only need one of these displays.*

Over time, components have been doing the integrating thing better and better. You can find really good DVD/VCR combos, for instance. Receivers can now control your video signals as well as audio ones. Personal video recorders are now a part of many digital cable and satellite set-top boxes. We talk about the advantages of individual components versus more integrated units in Chapter 11.

Also note that these prices are a snapshot in time — they are continually dropping, so don't be surprised to find everything on this list available for even less money when you go shopping.

Certainly, you don't need all the gear in Table 1-1. You can buy a nice all-in-one home theater system and a smaller (but high-quality) flat-panel TV for not much more than $700. Of course, you can spend a lot more money, too. One thing is for sure: Pricing is competitive and is changing all the time. Two years ago, a lot of the gear listed in Table 1-1 cost twice as much as it does now. As we go to print, the first 50-inch plasma screen TVs for under $1,000 are hitting the market.

To get a quick grasp on pricing, go to a few Web sites, such as `www.circuitcity.com`, `www.plasmatvbuyingguide.com`, and `Pricegrabber.com` to get a sense of the going rate for different items. Compare that with Table 1-1 to get a sense of how much pricing has dropped just in the time it took for this book to hit the shelves.

Buying on a budget

Given that you are probably working within a budget, here are some ideas about what you can expect to buy and install for different total budget ranges:

- **$0 to $500:** Definitely the entry-level package for home theater, a system in the under-$500 range basically uses your existing TV (or includes an inexpensive flat-panel TV in the 27-inch range) and an entry-level all-in-one home theater system package (which comes with all the speakers you need for surround sound and a receiver/DVD player combo). You can probably throw in a $50 VCR if you don't already have one, but even the lowest level all-in-one home theater sets include DVD players. (Gotta have DVD!)
- **$500 to $2,000:** By spending a little more, you can go up a range in a number of the components and get HDTV into your home theater, which we highly recommend — especially because all TVs convert to digital in 2009! You can spend some of this money on a midsized flat-panel TV (perhaps in the 37- to 42-inch range), though with the way flat-panel prices are dropping, you may be able to get a 50-inch or larger flat-panel TV, while leaving money in your budget for audio equipment. Or if you need a bigger screen, consider a rear-projection TV; the 50-inch screens

start at around $1,000. This price range has a range of options for better surround-sound systems, with packaged options available for your five surround-sound speakers plus your subwoofer. And you can buy a fairly good A/V receiver to drive the system. Top this all off with a portable MP3 player and a DVD player for the car, and your kids will love you (more).

- **$2,000 to $5,000:** At this level, you start to create serious options for a very decent home theater system. You should be able to get a high-quality 50-inch or bigger 1080p (this term refers to the resolution of the screen — 1080p displays are the highest available) flat-panel TV or an even larger LCD or DLP (digital light processor — a special micro-mirror–based chip system) rear-projection unit with a great high-def picture (starting at around $1,500). You might make the move from DVD to Blu-ray at this budget level. (Entry-level Blu-ray disc players are hitting around $300 as we write.) On the audio side, you can spend $1,000 or so on a relatively fancy all-in-one system, but at this price level you can also start to get serious with separate components, getting a very good A/V receiver, DVD/CD player/recorder, personal video recorder, gaming system, surround-sound speakers, and potentially even more. At this price range, the average person can get a mighty fine system.
- **$5,000 to $10,000:** When you top $5,000 as your budget, you can start expanding in some wonderful ways by adding more throughout the house through multizone capabilities, whole-home audio, and universal remote-control capability, or you can continue to go up the ladder in terms of higher-quality separates. We swear by audio servers that store all your music in one box. Get one for the car, too, and have them sync up when you drive in the driveway. Front-projection TVs become a viable option in this price range; good projectors start around $2,000. No matter what you choose — flat-panel, rear-projection, or front-projection — in this price range, you should expect a big (50-inch or more) high-definition display. Or you can get fancy with furniture. Good home theater seats start around $350 each. A high-quality universal remote control costs about $500.
- **$10,000+:** Above $10,000, the sky is truly the limit. For $10,000 to $20,000, you get to enjoy a lot of the next generation of home theater. At this point you'll be buying the top-of-the-line 56-inch or larger plasma or LCD flat-panel TVs, or a very high-end projection system. Your DVD player should be the best available and should play not only DVD but also Blu-ray discs. You probably want some extra amplifier equipment in the system, and you may also want to boost your controls, perhaps with a nice Control4 wireless touch-screen control. If you get above $20,000, you are into high-end audiophile-type stuff all the way. Whole-home audio and video, integration with home automation systems, consultants — the works. Believe it or not, it's not unusual for people to spend $1 million or more on a home theater. At that point, we think a lot of money is being paid for custom interior design, high-end projectors, and so on. Nothing is held back. To us, given more modest expectations, a $25,000 system is stunning in almost all senses of the word.

Getting Your Money's Worth

In deciding how much to spend overall, we can give you only this advice: Your home entertainment system is probably one of the most-used parts of your home. It helps define your family, social life, business relationships, and so on. It's important, but spend within your means. You also want to save something for the future. Building and later adding onto a home theater is fun, too.

One of the great things about home theater is that it's modular, so you don't have to buy the whole thing all at once. If you really want a great TV display, get it, and go cheaper on the other components. And when you're ready to trade up, figure out what you want next. The better stereo stores have a trade-up policy that gives you credit toward getting something better. And then there's always eBay (`www.ebay.com`) or similar auction sites, where you can get all sorts of gear in great condition — everyone is always trading in stuff to move to higher levels, so don't feel pressured to do it all at once.

Realize that, even if you are installing home theater wiring and speakers into the walls and such, you're not likely to 'get that money back' when you sell the house. People are leery of other people's homegrown solutions — even the professional ones — and equipment becomes outdated quickly in this industry. So if you're going to do some remodeling and spend some money, recognize that you are doing it for yourself first, everyone else second, and by all means not for the money.

Indeed, a lot of this book is about getting your money's worth out of whatever you buy. If you get an all-in-one home theater system for $199 from Radio Shack or a high-end system with, say, a $37,000 Faroudja projector, $18,000 worth of MartinLogan Prodigy speakers, a $4,000 B&K receiver, and other similarly priced components, you're still going to need to figure out how to get the most out of the system. So stay tuned to find out how to get more per kHz, or disc, or channel, or whatever you track your home theater fun by.

Chapter 2

Defining Your Home-Theatered Home

In This Chapter

- Checking out basic and elaborate home theaters
- Choosing the right space for your home theater
- Configuring your gear for your room or for the whole home
- Installing your theater yourself versus hiring a pro

Consumer electronics have played a major role throughout the years in defining not just how we live in our own homes but also how we live as a society. The radio, then black-and-white TV, then color TV, and then all the various adjuncts to the TV and radio — VCRs, gaming consoles, tape decks, and so on — have all helped define who we are and how we interact with each other. The edgier radio and TV shows over the years have had a profound social impact by acting out for us the crossing of various social barriers — for instance, the first on-screen interracial kiss, the first portrayal of a woman president, and the first portrayal of a black president.

The home has grown around these devices, so when it comes time to put these together on a pedestal and proclaim them a "home theater," this act seems to acknowledge the role that home electronics have come to play in our lifestyles.

The Basic Home Theater

So, what's in a home theater then? Well, a home theater is largely what you make of it, but we think that at least three major elements constitute the core of a home theater:

- **A large-screen display:** Note that we do not say *television.* More and more, the receiver aspect of a television is divorced from the display aspect, in the form of set-top boxes, external TV tuners, computers, and

other source devices. Appropriately, the display is being optimized for its main purpose — displaying the wide range of video output from a home theater system. These displays can be huge. We're talking greater than 120 inches diagonally, which is 10 feet for those of you who didn't do the math!

- **A digital video source:** At a minimum, this means a DVD player; and for most folks, it will also mean a TV source (such as digital cable or a digital satellite TV service). We think DVD is a bottom-line must-have when you're building a home theater because that's the way most of us access the movies we want to watch.

  For most people, the digital video source includes a source (or sources) of *high-definition* video, from TV broadcasts or the high-definition-capable Blu-ray disc player we talk about in Chapter 4.

- **A surround-sound capability:** You find out about the details of surround sound in a few pages, but you need to have surround sound to take full advantage of all the audio power stored in your DVD content. With surround sound, you truly start mimicking the theater experience.

If you're lacking any of these, you really don't have a home theater. Without the display and surround sound, you lose the effect of the visual and audio experience, and without a digital video source, you just have a loud and big TV system. You really need all three.

But you need not stop there. You can get digital video up on your big screen display in all sorts of other great ways — besides a DVD player — and you can add great devices to enhance your overall experience. The rest of this chapter is devoted to exploring the boundaries of your home theater realm.

The Complete Home Theater

In our discussion of budgets in Chapter 1, we give you a peek at what a really fleshed-out home theater might contain. Here's a fairly comprehensive list of what you typically put in your home theater (we leave out the all-in-one units because they merely integrate various combinations of these devices into one unit):

- **Sources:** These provide the content you watch or listen to.
  - Audio cassette player/recorder
  - CD player/recorder/MP3 player
  - Turntable
  - AM/FM tuner
  - DVD player/recorder