

# Chapter 1

## Viewing in HD and HD+

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### *In This Chapter*

- ▶ Looking at all sides of your NOOK HD or NOOK HD+ tablet
  - ▶ Using microSD cards
  - ▶ Taking care of the battery
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**I**n the beginning, there were books. And they were nicely bound between hard covers. Then came paperbacks, which were smaller and portable. They could go with you on trips. But a stack of ten was a heavy load. And engineers built a computer. Then the computers became laptops and were small enough to carry around. Soon, scientists created the e-reader. It was a clever thing — a device about the size of a pamphlet that could hold thousands of books.

Then came tablets. By its evolving definition, a *tablet* has many computer capabilities centered around a touch-sensitive, full-color display that supplies its own lighting. Now, in a technological blink of an eye, we've progressed to HD: high definition, high speed, and highly amazing. And even one step beyond — to HD+, higher and wider.



The NOOK HD and the even more impressive NOOK HD+ represent the third generation of NOOK tablets from Barnes & Noble. They are, hands down, the latest and the greatest in the family. If you've already used one of the older cousins, the NOOK Tablet or the NOOKcolor, you should feel quite at ease with the HD. Quite familiar, that is, in the same way that a 730-horsepower Ferrari F12 Berlinetta is of the same species as a Nissan Versa with a squirrel cage under the hood. They'll both get you to the supermarket, but not quite in the same style or speed.

## Telling HD from HD+

The NOOK HD and HD+ both use the same operating system and perform the same functions the same way. But they *aren't* identical twins.

The HD+ is a bit faster, can have more internal storage and, most significantly, has a screen that offers nearly 79 percent more viewing space (and also crams in about 5 percent more dots per square inch).

Table 1-1 shows the most vital of statistics for the two devices.

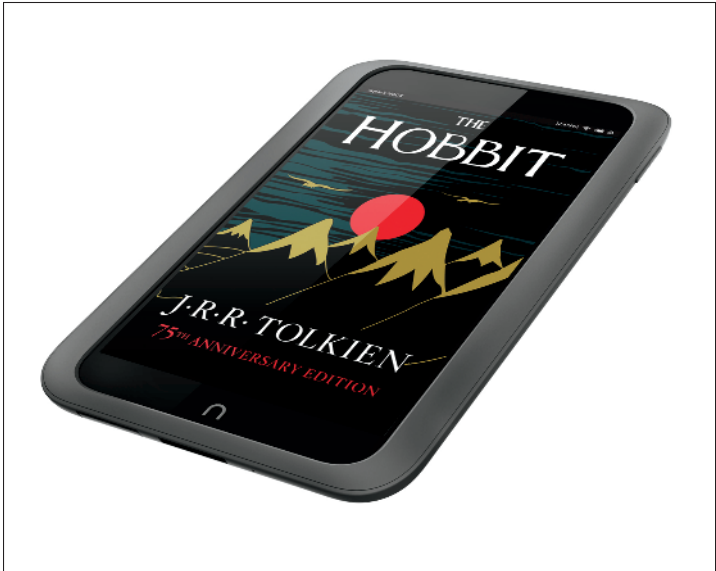
	<i>NOOK HD</i>	<i>NOOK HD+</i>
<b>Screen</b>	7 inches diagonal (21 square inches)	9 inches diagonal (37.5 square inches)
<b>Screen resolution</b>	1440 x 900	1920 x 1280
<b>Pixels per inch</b>	243	256
<b>Number of possible colors</b>	16,777,216	16,777,216
<b>Dimensions</b>	7.6 x 5 inches	9.5 x 6.4 inches
<b>Weight</b>	11.1 ounces	18.2 ounces
<b>Thickness</b>	.43 inches	.35 inches
<b>Processor</b>	Dual-core TI OMAP 4470 at 1.3 GHz	Dual-core TI OMAP 4470 at 1.5 GHz
<b>Internal storage</b>	8 or 16 GB	16 or 32 GB
<b>Memory card</b>	As much as 32 GB	As much as 32 GB

## Inspecting the Gadget

When you need to type characters or numbers (to move around the web, type in an email address, or the like), a virtual keyboard shows up. When it does, you can tap away at the touchscreen. It isn't tough to use, but I don't want you to get the idea that you can easily use the NOOK HD or HD+ to write the Great American Novel. You can read *The Adventures*

of *Huckleberry Finn* or *The Great Gatsby* with ease and style. See Figure 1-1.

You can read those novels a bit more easily on the larger HD+ screen, but its onscreen keyboard is only slightly better than the tiny equivalent on a smartphone; it's fine for filling in forms, composing emails, and shopping, but it isn't great for touch-typing.



Courtesy Barnes & Noble

**Figure 1-1:** Reading is easy; typing is tougher.



Find a place in the closet to store the box your NOOK HD or HD+ came in. If you need to send in the device for warranty service, this sturdy protective package is perfect for the purpose. And if you choose to someday regift your tablet to someone else and upgrade to the next wondrous model, it will look so much more impressive if it arrives in its original packaging.

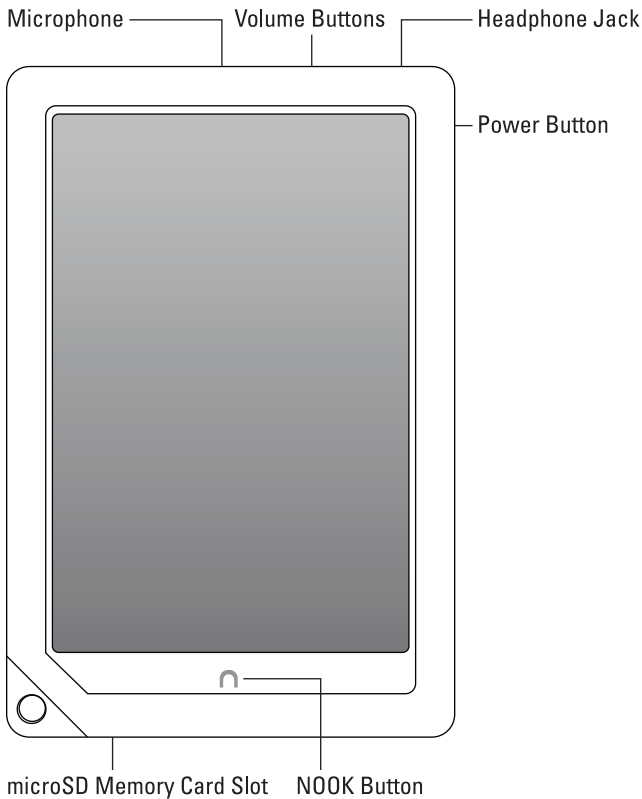
As I say earlier, the HD and HD+ models are nearly identical, but pay attention here to a few tiny differences. All of the following descriptions are based on looking at either model lying on its back, with its top facing away from you and the bottom closest to you: very much like the way you would look at a page from a book.

## The front

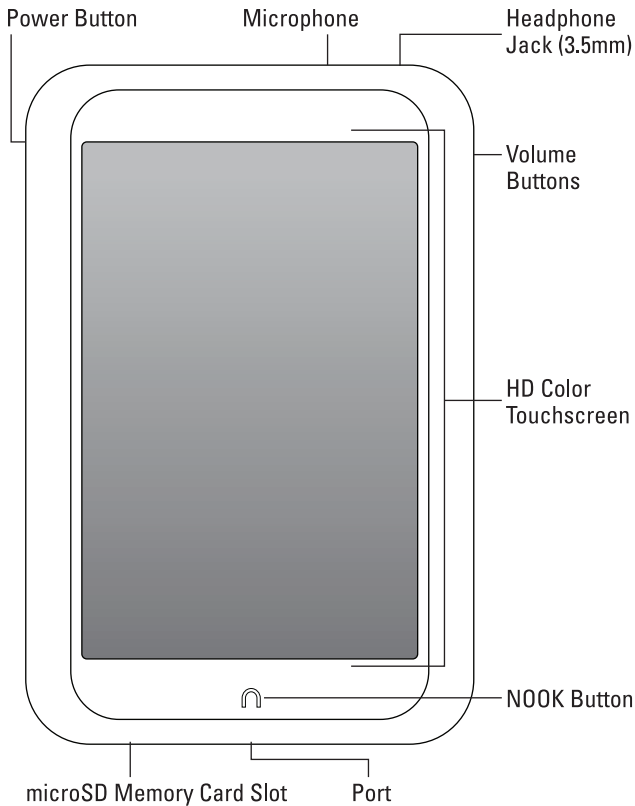
The front is home to just two or three items of note, two of them quite important and one strictly for whimsy:

- ✓ The HD or HD+ color touchscreen
- ✓ The Home button:  $\cap$
- ✓ The NOOK notch on the NOOK HD+ only: strictly for whimsy

See Figure 1-2 for a guided tour of the larger, faster NOOK HD+. And in Figure 1-3, you can see the similar — but not identical — parts of the NOOK HD.



**Figure 1-2:** The essential buttons, ports, and slots of the NOOK HD+.



**Figure 1-3:** A map to the external parts of the NOOK HD.

### About the color touchscreen



The color screens on both models are, to use a technical term, drop-dead gorgeous. A few other details are worth noting: The screens use something called *in-plane switching (IPS)*. IPS is an improved version of an *LCD* (liquid crystal display). It offers wider viewing angles and better color reproduction than earlier designs. The NOOK laminates the display to the surface of the touchscreen, which makes for less reflection and glare. The touchscreen uses *capacitive sensing*, meaning that it can tell the precise location of your touch as your finger disrupts the display's electrostatic field. I thought you'd get a charge out of that.

### Home button: $\cap$

The Home button is marked with the NOOK symbol, which looks like this:  $\cap$ . If your NOOK HD or HD+ is *sleeping* — with its screen turned off to reduce battery use — the screen is also locked so that accidental touches don't perform actions. Touch the Home button to wake up the device and turn on the screen.

If the screen is already awake, touching the  $\cap$  button takes you back to the Home screen. If you have told the system to require a password to start or reawaken, you will have to enter the four-digit secret code. Once you do that, the NOOK HD or HD+ returns to the screen you were on before it went to dreamland.



If you don't make the NOOK HD or HD+ require a password, you'll need to give the reader a special wake-up swipe. The sleeping device shows a circle on the screen, surrounded by profiles for the users who are allowed to use the device. Touch and hold one of the profile pictures or names, and drag it into the circle to unlock the device and return to the last screen you were viewing.

### About the NOOK notch

The NOOK HD+, like its older cousins the NOOK Tablet and the NOOKcolor, has a cute little notch in the lower-left corner. It looks for all the world like a place to hang something — perhaps a mountaineer's carabiner. But please don't. The designers wanted to make their reader immediately recognizable from across the room and this was the artistic element they came up with. Alas, the NOOK HD is notchless, a great loss to us all.



Don't use the NOOK notch to hook the NOOK HD+ to your belt buckle (or to anything else). Although I'm sure some people will think it's cute to attach a rabbit's foot to the notch, let me join with B&N in recommending against it: You just might end up damaging the screen.

## The top side

What you see depends on which model you have.

NOOK HD owners see a wondrously simple top. At the right corner is a headphone socket that connects to a common

3.5mm jack for earbuds or to an external sound system. And just next door is a hole behind which lurks the tiny microphone for the tablet. That's it; there's nothing more to see up here.

NOOK HD+ owners: The headphone jack is in the right corner, and about a third of the way over is the hole over the microphone. In between (on the NOOK HD+), you'll see the + and - volume buttons. I know you could figure this out, but here goes anyway:

- + raises the volume.
- turns down the volume.

The tablet doesn't go to 11.

## The bottom



On both the HD and HD+ models, the bottom has a couple important entry points: a specially designed 30-pin port and a microSD memory card slot. And there's a tiny power indicator light. It's orange while you're charging up and it's green when the battery is fully filled.

The 30-pin connector serves three purposes:

- ✓ Here's where you attach the USB cable that came with your tablet, and that cable, in turn, attaches to the AC adapter, allowing you to recharge the internal battery.
- ✓ If you buy an optional cable, you can send a high-definition image or video from your NOOK HD or HD+ to a television or other device that accepts an HDMI signal.
- ✓ You can use the USB cable to connect the NOOK HD or HD+ to a computer to transfer files (a *side load* in technospeak). You can drag and drop any PDF or EPUB files (plus compatible files from word processors, spreadsheets, and presentation programs) from other sources. You can also move files from the tablet to your computer.

If you're comfortable with the basics of a Windows or Macintosh computer, you can attach your NOOK HD or HD+ and use it as a storage device — essentially the same as an external hard drive or a flash memory key. You can also connect to a digital book manager like Adobe Digital Editions or

Calibre to manage files. (I explain book buying and file transfer in Chapter 4 of this book.)



The 30-pin connector (such a boring, yet utterly descriptive name) is specific to the NOOK HD and HD+ devices. Be very careful before using any look-alike connector unless it promises full compatibility with your device. You can plug in the connector only one direction — with the little  $\Omega$  facing up, aligned with the  $\Omega$  on the front of the tablet itself.

The tiny microSD slot opening can accept a little sliver of electronic flash memory (called a *microSD card*) as large as 32GB. This card holds information that's in addition to your tablet's built-in memory. And though 32GB is a whole lot of room, if you fill up one card, you can simply remove it and install a new card.

## The left

NOOK HD+ owners won't see a thing on the left side of their tablet.



NOOK HD owners will see the power button on the left side of their device. (HD+ has the power button on the right.)

- ✓ **To turn it on:** Press and hold the silver button for 2 seconds (one Mississippi, two Mississippi . . .) and release it to turn it on. If your tablet needs a password, enter that four-digit number.
- ✓ **To turn it off:** Press and hold the little rectangular button for about 2 seconds (one Mississippi, two Mississippi. . .). A message asks if you really, really want to do that; tap the Power Off button to confirm.



You don't have to turn off your NOOK HD or HD+ when you're done using it. It can tell that you haven't tapped its screen for a few minutes. It will turn off its screen and go to sleep. Or, press and immediately release the power button to send it to Sleep mode. The advantage to Sleep is that when you wake the NOOK, it jumps right back to where you were the last time you were paying attention to it.



If you start with a fully charged battery and let it go to sleep, the NOOK HD or HD+ should sleep for a week or perhaps several. (Make sure the Wi-Fi radio is turned off, or the battery will drain even while the tablet is sleeping.)

Why would you want to completely turn off the NOOK tablet?

- ✓ You're on an airplane that's taking off or landing.
- ✓ You're in a hospital or the like.
- ✓ You want to put your tablet on the shelf for a month while you sit down to write your own Great American (or Canadian) Novel.

## The right

Okay, so here you have some changes in latitudes and changes in attitudes.



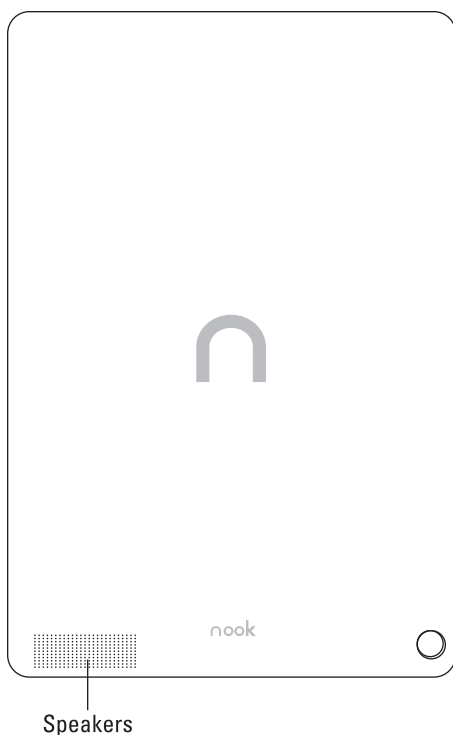
The NOOK HD+ power button is here. For details, read the description of that energetic button in the preceding section, but don't forget that on the HD+, the power button is on the right side of the tablet.

On the NOOK HD, the volume buttons are on this side (not on the top, like they are on the other device). Either way, you know how they work, I'm sure: + means louder and – means quieter, all the way down to mute.

## The back

The tablet's back gives the tablet something to hold up the front. And it's where you can find the built-in speakers.

The HD+ has a single opening opposite from the NOOK notch. Two tiny speakers are under the grill. The NOOK HD has no notch, but it does have two tiny openings, with a speaker beneath each grill. You can look at the backs in Figure 1-4 and 1-5.

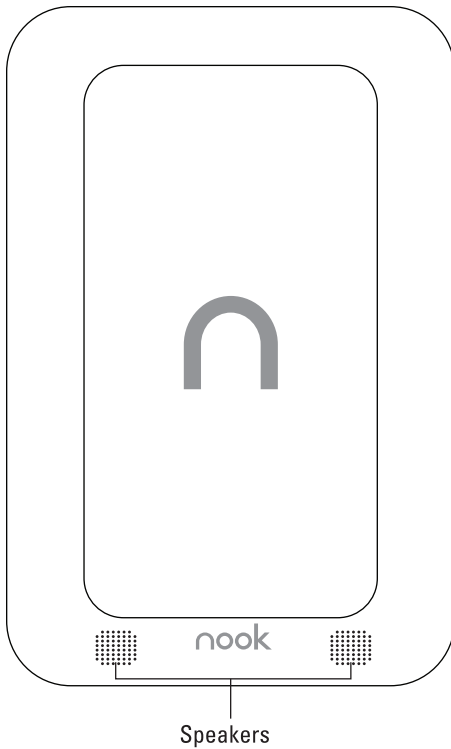


**Figure 1-4:** The back panel of the NOOK HD+ has a single grill that covers a pair of tiny speakers.

Don't expect the sound quality (or volume) to rival your stereo system. The audio is good enough to hear system notification tones and — with a bit of effort — music or audio. But if you plan to groove to some of your personal tunes, buy earbuds and plug them into the outlet at the top end. If you want to share the sound with someone, you can buy a splitter that allows two devices to plug into the same jack.



If you're going to be listening very closely to music or speech, it may help if you do not lay the tablet flat on its back; to get the best sound, the speaker should not be covered.



**Figure 1-5:** The NOOK HD back panel has a pair of separated speakers.

## Getting More on a microSD Card

SD cards are forms of *flash memory*. That means once you save data, it stays even when the power is turned off.

There are enough kinds of *secure digital (SD)* cards to confuse even the experts. There are SD, mini SD, and microSD sizes, and then there are SD, SDHC (high capacity), and SDXC (extended capacity).



Here's what you need to know:

- ✓ Do buy a microSD, microSDHC, or microSDXC card.
- ✓ Don't buy an SD or miniSD card.



I recommend buying a card with these specs:

- ✓ **microSDHC or microSDXC card.**
- ✓ **16GB or 32GB.** You'll get the most bang for your buck with a 32GB card, the maximum size for the NOOK.
- ✓ **Class 6 speed.** You don't need to pay for a faster speed (like Class 10), and you don't save enough money to make it worth putting up with a slower Class 2 or Class 4 card.
- ✓ **Made by a recognized name brand.** That includes Kingston, Lexar, Sandisk, or Transcend. Cheaper brands exist, but I don't recommend taking unnecessary chances with data.

One example of a microSDHC card is shown in Figure 1-6.



**Figure 1-6:** This 32GB microSDHC card is from Kingston Technology.

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## Installing a microSD card

The kind designers of the NOOK HD and HD+ made sure you don't need a post-graduate degree in engineering to install a memory card. You can get to the card slot without removing the back cover; you need no tools other than your fingers.

Just take your time, be careful, and follow these instructions to install a memory card:

### 1. Turn off the device.

Technically this isn't required, but it is a good practice anytime you're working with electrical devices.

### 2. Cover a well-lit, clean, level surface with a soft cloth. Lay the tablet face down on the cloth.

Make sure there are no cups of coffee, soda, water, molten iron, or anything else that could spill onto your tablet.

### 3. Find the small soft plastic lid to the left of the 30-pin connector on the bottom of your NOOK HD or HD+.

### 4. Using the tip of your finger, gently pull the lid straight out from the body of the tablet.

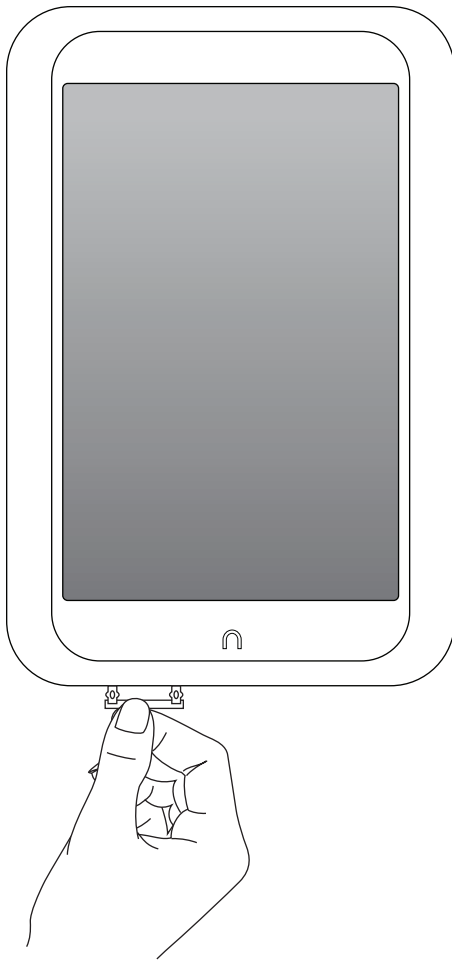
The lid doesn't completely detach; flexible bands keep it on. See Figure 1-7.

### 5. Hold the memory card *with the logo facing up toward you*; carefully slide it into the slot.

Push gently against the card until it's fully in place. See Figure 1-8. Don't force it into place; if you have the correct memory device (a microSD size card), it should fit easily. If it looks about twice as large as the opening, you've got the wrong card. Micros only need apply.

### 6. Gently slide the lid closed and snap it into place.





**Figure 1-7:** Open the plastic cover to expose the SD card slot; shown here is the NOOK HD.

To remove a memory card from your tablet, follow the first three steps for installing a card and then carefully slide the card out of its slot. Place the card in the protective case it came in (or in a clean plastic bag) and put it away for future use. Close the small gray lid and snap it into place.



**Figure 1-8:** Insert a microSDHC card in the slot on the bottom of the device; shown here is the NOOK HD+.

## Formatting an SD card

Your new microSD card may come *formatted* (a process that electronically indexes its memory so that the computer inside your tablet knows where to store or retrieve information). In that case, it's ready.



If you insert an unformatted microSD card, the NOOK HD or HD+ will alert you. No biggie: Use the Format command.

To format a microSD memory card when the system asks, follow these steps:

**1. Tap the Format Now button.**

You're asked if you are sure. Sure you're sure!

**2. Tap Format Now.**

## Babying the Battery

To do all the gee-whiz things, your NOOK tablet needs electrical power. Specifically, it needs a properly charged battery; the good news is that the device's lithium ion battery is rechargeable.



Chances are your new NOOK HD or HD+ will arrive with not much of a charge in its electrical tank. And therefore, the first thing you want to do — after you open the box — is plug it in and put some juice in the battery. If you are really, really determined (impatient?) to try your new tablet as soon as it arrives, go ahead and turn on the power; if there's not enough of a charge, the NOOK will either refuse to start or display a warning message along these lines: *Get thee to a chargery.*

If you turn on your NOOK when its battery is almost gone, you get a warning to begin recharging before you try to use the tablet. If the battery is depleted, the tablet will shut down until it has been sufficiently recharged.

Charging checklist:

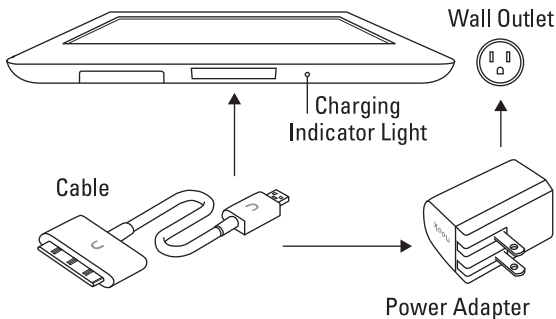


- ✓ The only officially sanctioned source of power for your NOOK HD or HD+ is the AC adapter provided by Barnes & Noble. It comes in the box with the tablet, no extra . . . err . . . charge.
- ✓ The charger and its cable with a 30-pin connector *aren't* the same as the unit used by older cousins like the NOOK Tablet, the NOOKcolor, or any of the original NOOK e-readers.
- ✓ You *may* be able to find a replacement AC charger and cable with identical specifications from a third party; check and double-check before using one.

- ✔ You can buy a car charger from B&N.
- ✔ You can't charge the NOOK HD or HD+ using the power output of a USB port on a personal computer or laptop.

## Getting power from the wall

The NOOK HD or HD+ power adapter is a small cube that you plug into a wall outlet or power strip. To use it, you also need to attach the USB (sometimes called *microUSB*) cable to the cube at one end and to your tablet at the other. See Figure 1-9.



**Figure 1-9:** The power adapter and its detachable USB cable for the NOOK HD or NOOK HD+ look like this.



Follow these steps to charge up:

- 1. Plug the smaller end of the USB cable into the right spot on the AC adapter.**

There's only one opening, and the connector on the cable will only fit in one orientation. The little  $\cap$  symbol faces up, away from the direction of the electrical plugs.

- 2. Plug the large 30-pin connector end of the USB cable into your NOOK tablet.**

- 3. Plug the power adapter into a compatible electrical wall outlet or power strip.**

If your NOOK tablet was turned off, it will turn itself on. Depending on how much power is in the battery, it might take 4 hours to fully recharge your device. The indicator light at the bottom of the device turns green when it's fully charged.

The adapter can work with power between 110 to 240 volts; however, the shape of the plug is designed for use in the United States and Canada. You *can* connect your NOOK HD or HD+ power adapter to a *plug adapter*, which lets you plug into a European or other foreign power source that uses a different plug shape. (There are a lot of *plugs* and *adapters* in this paragraph; re-read it carefully if you're going to travel outside the United States or Canada. Otherwise, press on with this chapter.)



Don't turn off the NOOK HD or HD+ while it's charging.

You can also check on the battery by looking at the little battery icon in the right corner of the status bar that appears on the screen of your NOOK tablet. You may need to unlock the device to see the screen; I explain how to do that in the very next section.



If the charging indicator is blinking, something is wrong. One possibility is that the tablet or the adapter is too hot; move it to a cooler place and try again. If it continues to blink, call Barnes & Noble customer service and seek their counsel.

## Locking or unlocking the tablet

When you allow (or command) your NOOK HD or HD+ to go to sleep, the screen shuts off to save power. It also locks the touchscreen so you can't accidentally touch or swipe and make it do something.

To wake your NOOK from a doze, do this:

- 1. Press the  $\cap$  button at the bottom of the front side of the tablet.**

If you've set it up so that you have to enter a pass-code, tap the number pad to provide the secret code; then tap the Enter key.

- 2. Touch and hold on your name or picture; swipe it up into the middle of the circle that appears on the screen with a lock at its center.**

I explain touchscreen gestures in the next chapter.

After you unlock the NOOK, you're back to the last screen you visited.