Gadget Geek Gear: Xbox 360 Accessories
The earliest video game consoles typically included two controllers and offered little or no additional accessories. Although the first NES came with a goofy “robot” for the North American release, the motive for it was to market the NES as an educational tool because Nintendo believed that consumers would not buy a video game console purely for entertainment. Times have changed! Accessories are all the rage today for the latest consoles, and consumers are buying them. It was once true that most consumers never bought additional hardware accessories for their console and used only what came in the retail box. But today, with so many different types of televisions (from HDTV to S-Video to composite) and so many genres of games, accessories such as high-definition cables, wireless controllers, and driving wheels are popular.

CONTROLLERS
The Xbox 360 is the first video game console to offer a wireless controller as standard equipment (in the Premium package). The Core package comes with a wired controller.

Standard Controller
The standard wired controller is shown in Figure 4.1. This controller has been refined quite a bit since the Controller S on the original Xbox came out—greatly improving on the original Xbox controller, which was bulky and uncomfortable to use in the opinion of many.

Wireless Controller
The wireless controller is shown in Figure 4.2. This controller uses a radio frequency transceiver built into the Xbox 360 (located just behind the power button).
The wireless controller is powered by two AA batteries or a rechargeable battery pack that is optionally available. The Charge & Play kit, shown in Figure 4.3, comes with a rechargeable battery. A controller cable (USB, like the wired controller) plugs into the small socket on the front edge of the wireless controller, and the other end plugs into one of the USB ports on the bottom front of the Xbox 360 where you normally plug in the wired controller. This allows you to continue playing games while the battery pack is recharging, and the nice thing about it is that the recharger draws its power from the USB port.

Voice Communication Headset
The voice communication headset (see Figure 4.4) plugs into the back of the Xbox 360 controller facing the player and provides voice chat capability to your games. The nice thing about the headset is that it works even with the wireless controller!
If you are a racing fan and would like better control in games like *Project Gotham Racing 3*, I recommend you pick up a racing wheel from a company such as Mad Catz (http://www.madcatzstore.com), whose products are usually available at major retailers.

**REMOTE CONTROLS**

Two remote controls are available for the Xbox 360: the Premium Media Remote and the Universal Media Remote. Both remote controls add a lot of functionality to your Xbox 360 and are sometimes more convenient for doing certain tasks in the Dashboard.

**Premium Media Remote**

The Premium Media Remote (see Figure 4.5) is bundled with the Xbox 360 Premium package and is not available for purchase separately (at least not at the time of this writing).

**Universal Media Remote**

The Universal Media Remote (see Figure 4.6) is the remote control that is available in retail outlets for your Xbox 360. This remote is actually more functional than the smaller one. It provides some interesting control over the 360 when you are connected over the network to a
Remote Controls

Windows Media Center PC, in which case you can stream live TV through your Xbox 360 and perform tasks like recording and pausing the video stream.

Figure 4.5
The Premium Media Remote.
Figure 4.6
The Universal Media Remote.
STORAGE DEVICES
There are two options for storing data for use in your Xbox 360: the memory unit and hard drive.

Memory Unit
The memory unit for the Xbox 360 (shown in Figure 4.7) is significantly denser than memory cards in other consoles to date, providing 64MB of storage space for saved games. You can also use the memory unit to transport your Xbox Live account to another Xbox 360 when you would like to play at a friend’s house.

Figure 4.7
The memory units can store 64MB of saved games and your Xbox Live account.

Figure 4.8
The standard hard drive has 20GB of storage space.
Hard Drive
The Xbox 360 hard drive (shown in Figure 4.8) is standard equipment in the Premium package but does not come with the Core package. The hard drive is available for purchase separately if you don’t already have one. It is strongly recommended that you use one for the best possible experience with your Xbox 360. If you play online using Xbox Live, it’s possible to go without a hard drive, but if you want to download additional content (such as new levels and items for your games), you need the hard drive. In addition, if you want to play original Xbox games, the hard drive is required. Although the hard drive is currently only 20GB, it is likely that new, higher density hard drives will be available for the Xbox 360 in the future.

Audio/Video Cables
Audio and video cables are often the most confusing consideration when you are thinking about buying a new video game console system. I will try to clear this matter up for you with regard to the Xbox 360 to help you select the best cable for your needs.

Composite “RCA” Video Cable
The composite or RCA-style cable (see Figure 4.9) comes standard in the Xbox 360 Core package and provides support for standard television sets. This cable is what you will want to use if you have a standard TV (which is known as SDTV). But if you have a high-definition television (HDTV), you will want the component cable, described next. Figure 4.9 shows the composite cable.
cable. Standard TV sets have a maximum resolution of 640×480 and are either interlaced (i) or progressive (p). However, not all video sources output at this resolution. Table 4.1 illustrates.

Table 4.1 SDTV Video Resolutions

<table>
<thead>
<tr>
<th>Type</th>
<th>Ratio</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadcast TV</td>
<td>4:3</td>
<td>440×330</td>
</tr>
<tr>
<td>VHS Tape</td>
<td>4:3</td>
<td>320×240</td>
</tr>
<tr>
<td>LaserDisc</td>
<td>4:3</td>
<td>560×420</td>
</tr>
<tr>
<td>DVD</td>
<td>4:3</td>
<td>640×480</td>
</tr>
</tbody>
</table>

If you’ve ever wondered why VHS movies look so terrible compared to DVD video, this table shows why. At a resolution of 320×240, how did this format ever become so popular over technologies like LaserDisc? Although an attempt was made to produce an optical disc called Super VHS using existing CD-ROM technology that boasted a 1:1 resolution of 480×480, this format never caught on.

In the TV industry, it is standard to list the vertical resolution (such as 330 lines for broadcast TV); however, the horizontal resolution is never fixed and varies from one TV set to another, which affects quality. SDTV refreshes the display at 30 frames per second (fps). If you have a standard DVD player, it outputs video at 480i. If you have a progressive-scan DVD player, it outputs video at 480p. (And the difference is dramatic.) The Xbox 360 SDTV cable outputs a 480p video signal.

Beyond the Manual

There is a misconception about 480p that many gamers have. 480p is not HDTV; it is SDTV. HDTV operates at 720p, 1080i, and 1080p. Video games running at 480p look much better due to the progressive scan of the video, but only if the TV set is capable of progressive display. Most standard TVs are not.

S-Video Cable

A related technology, S-Video uses the same basic formats as composite video, but it separates the color signal (chrominance) from the brightness signal (luminance), which produces a much cleaner, sharper image than is possible with composite. S-Video greatly improves the image, especially in video games, because it eliminates problems like color bleeding, which tends to decrease the quality of a composite display. The Xbox 360 S-Video cable is also shown in Figure 4.9 (as a combined set). If your TV set is not HDTV, your best option is to check to see
if it has an S-Video input and then purchase the S-Video adapter for your Xbox 360. Aftermarket S-Video and composite wires are usually combined on the same cable.

**Geek Speak**

Chrominance refers to the color portion of a video signal. Luminance refers to the brightness of a video signal. S-Video separates the two (for a clearer video signal), whereas standard composite video combines them.

**Component HDTV Cable**

The cable to use for a High-Definition Television (HDTV) is the component video cable (shown in Figure 4.10). The word component describes how this cable works. It uses three cords for video output to an HDTV set: usually a red cable, a green cable, and a blue cable, as you can see in Figure 4.10. These three cables are bundled together and collectively called the component cables, representing the Y/Pb/Pr (YUV) inputs for HDTV. Table 4.2 illustrates.

**Figure 4.10**

The component video cable carries the high-definition signals to your HDTV.

**Table 4.2**  HDTV Video Resolutions

<table>
<thead>
<tr>
<th>Mode</th>
<th>Ratio</th>
<th>Resolution</th>
<th>Frame Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>480i</td>
<td>4:3 or 16:9</td>
<td>704×480</td>
<td>30 fps</td>
</tr>
<tr>
<td>480p</td>
<td>4:3 or 16:9</td>
<td>704×480</td>
<td>60 fps</td>
</tr>
<tr>
<td>720p</td>
<td>16:9</td>
<td>1280×720</td>
<td>60 fps</td>
</tr>
<tr>
<td>1080i</td>
<td>16:9</td>
<td>1920×1080</td>
<td>30 fps</td>
</tr>
<tr>
<td>1080p</td>
<td>16:9</td>
<td>1920×1080</td>
<td>60 fps</td>
</tr>
</tbody>
</table>
**VGA Video Cable**

The Xbox 360 VGA HD cable (shown in Figure 4.11) has a DV-15S VGA connector for sending the video signal from your Xbox 360 to a computer monitor. Although this type of cable won’t work with a digital monitor (where a DVI-D cable is needed), the VGA cable is a nice accessory if you have a high-quality monitor available or if you just want to play with your 360 without requiring a TV (using your computer monitor). This cable does not output at HDTV resolutions, with a maximum supported resolution of 1280×1024 (SXGA, 5:4 ratio) and 1360×768 (WXGA, 16:9 ratio).

**Figure 4.11**

You can use the VGA adapter cable to send your Xbox 360’s video signal to a computer monitor.

**NETWORKING**

The Xbox 360 comes with a built-in network adapter, so all you have to do is plug in a Local-Area Network (LAN) cable from the 360 to your router or hub and you are good to go. However, what if your 360 is located in an inconvenient place that is nowhere near the router or hub (or your broadband adapter)? In that case, rather than routing a long cable through your house, the best option is to use the wireless adapter, shown in Figure 4.12. Of course, to use the wireless adapter, it goes without saying that you also need a wireless access point already set up.

**Beyond the Manual**

I cover networking in far more detail in the next chapter, so I’m only briefly touching on the subject here.

If you don’t have a network router or hub yet, and you already use your broadband adapter for your PC, you will need a router or hub to share the broadband connection between your PC and Xbox 360. This is the job of a router. You can now buy a router that has a four-port network switch and wireless access point combined. They are affordable today, typically costing less than $50 at major electronics stores. (I recommend http://www.newegg.com.)
COSMETIC ACCESSORIES
You can customize your Xbox 360 by replacing the front cover with a custom-designed front cover of your choice. This offers you the opportunity to really make your 360 suit your personal style. As you can see in Figure 4.13, there are many different styles of front covers available, like

Figure 4.12
The wireless network adapter for the Xbox 360.

Figure 4.13
Dozens of designer faceplates are available for the Xbox 360.
these four samples. There are already several dozen available from various retailers online (such as newegg.com), and the list is bound to grow in time. Expect to see custom face plates available with themes from your favorite games and from themes in popular culture in the near future.