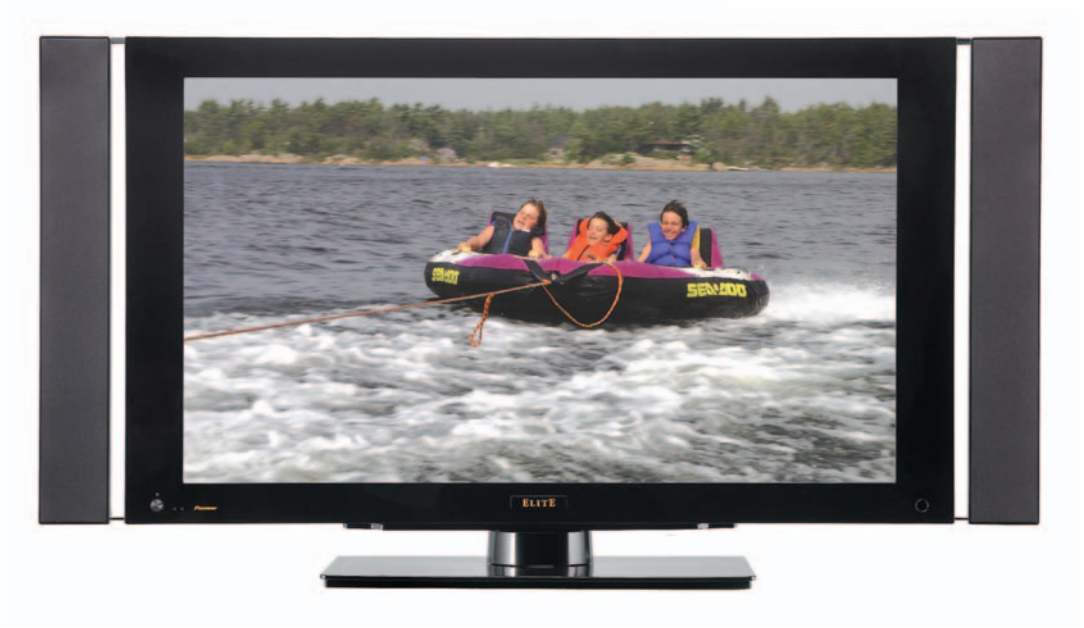

Pioneer Elite PRO-920HD: "The more I watched this wonderfully clear, film-like picture, the better I liked it, and the more I wanted to keep on watching."

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Pioneer Elite PRO-920HD

Pioneer was the first manufacturer to introduce plasma TV. One key feature of Pioneer's plasma panels is deep-encased cell structure. The deep cells can house more plasma and phosphor, the company says, resulting in richer colours, improved detail and longer phosphor life. This brand-new 43-incher is the first model to use the company's fifth-generation plasma technology. Instead of using a glass plate to filter out ultraviolet radiation, this new model uses a mylar filter bonded to the panel itself. Among other benefits, this improves contrast and suppresses reflections of ambient room light.

The AV control centre contains digital CableCARD-ready and analog cable-ready TV tuners. That means you can receive over-the-air HDTV signals. And if your cable company supports the North American CableCARD standard, you can receive digital TV services (including HDTV) without a separate set-top box. The control centre also has a wide range of input jacks, including HDMI for hooking up DVD players with digital outputs, and wideband component-video for connecting HDTV set-top boxes and progressive-scan DVD players. You can't ask more in terms of connectivity than this plasma set provides.

Included with the PRO-920HD are detachable side-mounting speakers and a swivel base. The whole package features the gloss-black finish that is a signature of Pioneer's premium Elite series. Besides providing an elegant look that will blend in any décor, the black finish means there are no shiny surfaces to reflect room light back at viewers' eyes.

I was a little disappointed in the remote. It's not bad, but it's not as elegant or intuitive as those than come with the other displays reviewed here.

Predictably, regular cable-TV didn't look great. The worst channels were pretty messy, but most were watchable.

But HDTV and DVD looked gorgeous. More than any product I have yet seen, this display addresses my concerns about plasma technology. Reflections of ambient light are very well controlled, making it easier to focus on the picture on the screen. Blacks weren't quite jet-black, but they were certainly as deep as I've seen on a plasma; and the transition to dark grey was very graceful. This was apparent in the high-def *Ocean Wilds* documentary on PBS, where detail in the B.C. forests was clearly visible. And the judges' dark business suits in the Olympic swimming event had good texture, even while swimmers' bathing caps had a glossy

Pioneer Elite PRO-920HD Plasma TV

Plus	Minus
• Wonderful, natural-looking picture	• So-so remote
• Built-in digital TV tuner	• Regular TV channels don't look great
• Elegant cosmetics	

Screen Size: 43 inches
Resolution: 1024 x768
Tuner Type: Digital cable-ready/CableCARD-compatible ATSC (HDTV) tuner; cable-ready analog TV tuner
Inputs (on AV control centre): HDMI (2), wideband component video (2), S-video (3: 2 rear, 1 front), composite video (3: 2 rear, 1 front), antenna (2), VGA (computer)
Size (without speakers and stand): 44-1/8 x 25-3/4 x 3-7/8 inches (w/h/d)
Weight: 67.3 pounds
Price: $9,000

Open and Shut

Here's how LCD TVs work

The underlying technology of LCD televisions is the same as notebook computer displays. Behind the panel is a bright fluorescent bulb, and a sheet of white plastic to spread light from the bulb across the panel.

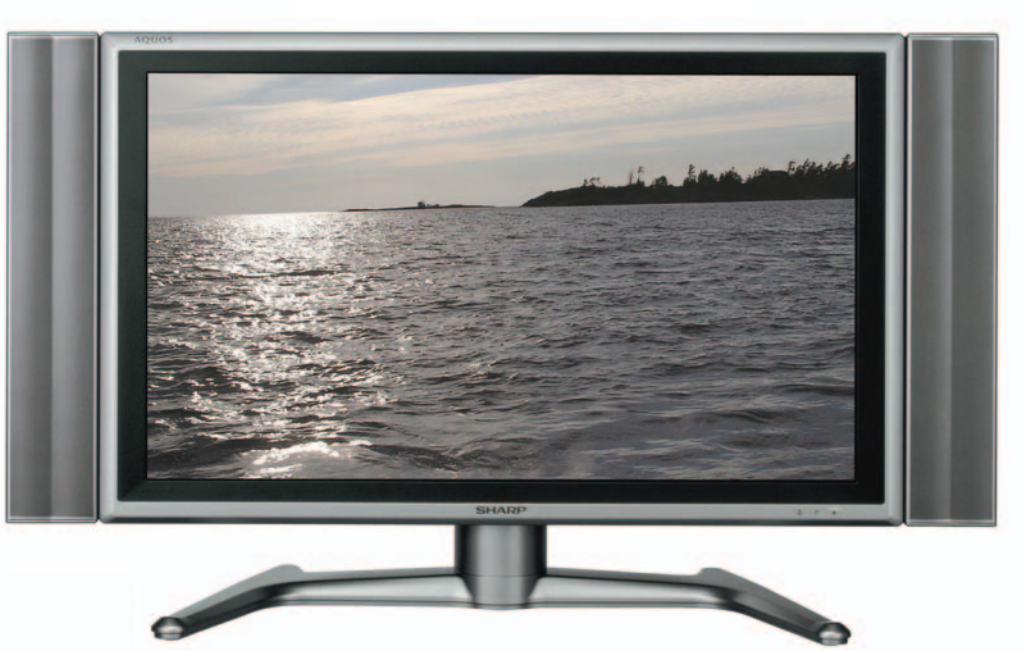
Sandwiched between two glass panels are cells containing a liquid crystal, a strange substance that combines characteristics of solids and liquids. As with solids, liquid-crystal molecules maintain the same orientation with respect to one another. But like liquids, these molecules can move around to different positions.

Etched onto the glass behind each pixel (and a high-definition display has millions of pixels) is a tiny transistor that delivers a precise amount of electrical current to the liquid crystal in the cell.

Depending on how much electrical current the controlling transistor applies to the cell, the liquid-crystal molecules will twist in one direction (allowing light to pass through) or in the opposite (blocking it). In effect, each cell is a tiny shutter, opening and closing to allow the appropriate amount of light to pass through.

On the surface of each cell is a coloured filter, red, green or blue. By varying the current applied to the three transistors controlling each individual group of red, green and blue sub-pixels, millions of different colours can be produced. The resulting combination of millions of pixels forms a colour picture.

The major engineering challenge with LCD TVs is to get the liquid crystal shutters to open and shut quickly enough that there's no blurring on rapidly changing video signals.



Sharp Aquos LC-37G4U: "If you're looking for a flat panel that will shine in bright environments, this Sharp LCD will certainly fill the bill."

black look. Skin tones weren't as rosy as on the LG display, but to my eyes looked more natural. On DVD and HDTV alike, the picture was smooth and film-like, with no obvious artifacts to interfere with one's enjoyment. The more I watched this wonderfully clear, film-like picture, the better I liked it, and the more I wanted to keep on watching.

Sharp Aquos LC-37G4U

Sharp was the company that popularized liquid-crystal televisions. This 37-inch widescreen model is Sharp's second-largest model.

It comes with an AV control centre, detachable side-mounted speakers and detachable pedestal stand. A wall-mounting kit is optional. Without the speakers, the cosmetics are a bit understated. The screen is surrounded by a black frame, set within a matte-metallic case. But with their attractive aluminum grilles, the speakers add a big splash of style.

The control centre has an analog cable-ready tuner, but not a digital tuner. (However, Sharp offers other Aquos LCD TVs with digital CableCARD-ready tuners.) If, like most people, you get your HDTV service via satellite or cable, the lack of a digital tuner isn't an issue. The control centre has a wide range of inputs, including HDMI and DVI inputs for connecting DVD players with digital outputs, two sets of wideband component-video jacks for use with HDTV set-top boxes and progressive-scan DVD players, two composite-video inputs and one S-video input. There are front-panel audio-video connections for hooking up components like camcorders and game consoles.

The remote is intuitive and functional. And the thorough, well-written menu will help you learn this TV's functions quickly. One unusual function is a PC Card slot, allowing you to insert digital camera memory cards so you can view pictures on this big high-resolution display.

As with other displays reviewed here, regular TV channels ranged from messy to pleasantly watchable, depending on picture content and signal quality.

Of course, HDTV and DVD were far more satisfying. Blacks looked satisfyingly dark, and the transition to dark grey was superb, the best of all the displays reviewed here. In our HDTV recording of *Ocean Wilds* from PBS, there was abundant detail in the dark coastal forests in the background, yet blacks were deep and whites were dazzlingly white. The pictures were wonderfully sharp, with superb detail. However, colours didn't look quite as natural as the plasmas, particularly the Pioneer. And the picture on DVD movies wasn't quite as film-like, having more of a video-like glare.

The main downside of this television is motion blur. It's not gross, and some viewers may never notice it. It manifests itself by slight blurring of detail during camera pans or subject motion, or even if someone on the screen turns his face rapidly during a close-up.

But there's an even bigger upside: a remarkably bright picture. Even in a bright daylit room, the picture was vibrant and punchy. The effective anti-reflection coating on the LCD means that ambient light won't spoil your enjoyment of this super-sharp picture. If you're looking for a flat-panel that will shine in bright environments, this Sharp LCD will certainly fill the bill.

Sharp Aquos LC-37G4U LCD TV

Plus	Minus
• Wonderfully sharp picture	• Some motion blur
• Very bright	• No digital TV tuner
• Three-dimensional images	

Screen Size: 37 inches
Native Resolution: 1366 x768
Tuner Type: Cable-ready analog TV tuner
Inputs: DVI, HDMI, wideband component video (2), S-video, composite video (2), VGA, PC Card, antenna (2)
Size (with speakers attached): 43-3/8 x 21-1/2 x 2-3/4 inches (w/h/d)
Weight (with speakers): 43 pounds
Price: $7,499

Sony KDL-42XBR950

With its floating-panel design, this big Sony LCD television looks drop-dead gorgeous – even before you turn it on! The LCD panel is surrounded by a black frame that highlights the picture and suppresses reflections; and the whole thing is framed in thick glass, with an illuminated lavender Sony logo tastefully placed in the lower middle. There are detachable speakers on either side. It's completely cool and completely elegant at the same time. The elegant, intuitive metal remote also exudes quality.

The AV control centre is just as pretty, with a milk-white flip-down front panel and brushed aluminum cabinet. It houses digital and analog TV tuners. The digital tuner can receive over-the-air HDTV broadcasts. But it's not CableCARD-ready; so you'll need a set-top box to get digital cable, including HDTV (and of course, you need a set-top box to get digital satellite). There's a full range of video inputs, including DVI for connecting DVD players with digital outputs, two wideband component-video inputs for connecting HDTV set-top boxes and progressive-scan DVD players; three 1394 digital interfaces (which Sony calls "i.LINK") for connecting digital camcorders and multiple S-