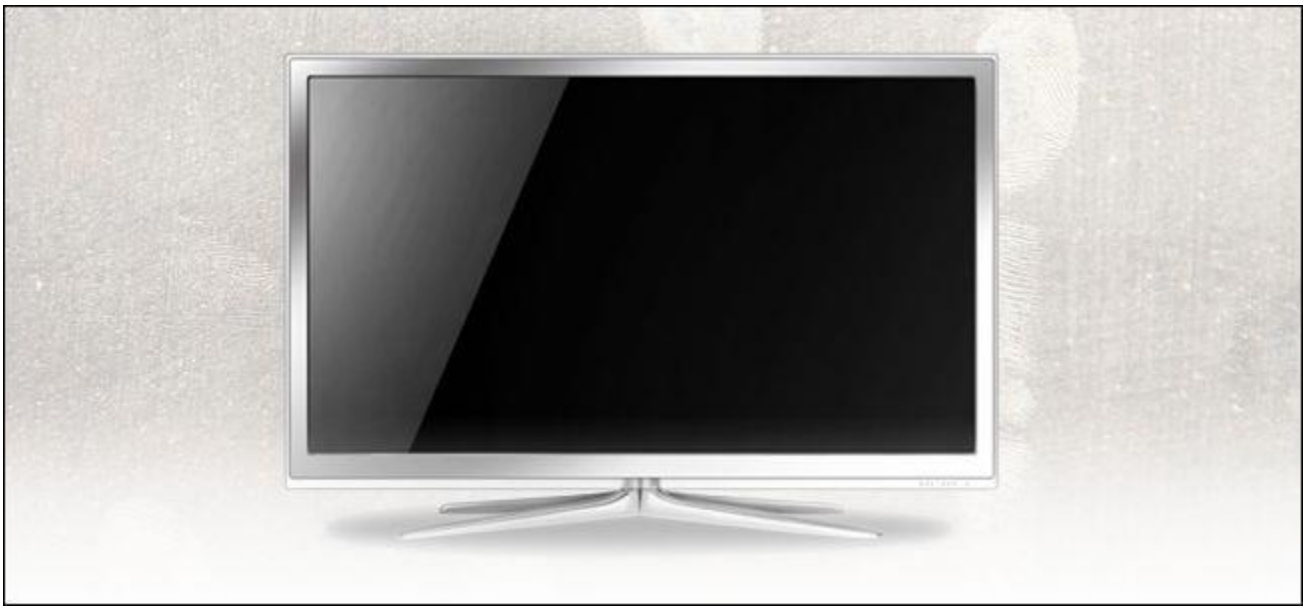
The How-To Geek Guide to Cleaning Your LCD Monitor Screen



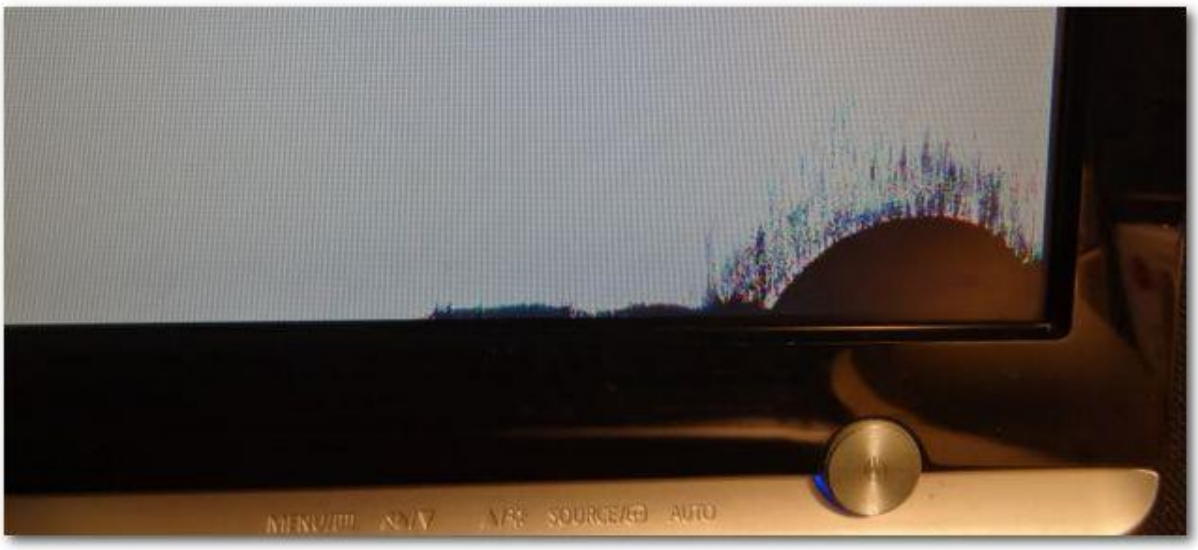
Whether you're trying to get the dust off your monitor or your kid's fingerprints off your gorgeous new HDTV set, removing dust, dirt, and oil from the plethora of screens around you requires the right tools and the right touch. Read on as we show you how to safely clean your expensive screens.

Why Do I Want to Do This?

When you improperly clean your screen, be it your computer monitor or your television, it's only a matter of time before you damage it. Modern HDTV and computer screens are brighter, sharper, and more responsive than ever before, but they are also more delicate. It takes quite a bit of manufacturing magic to create a razor sharp image in such a slender form factor, and brute polishing it with a bottle of Windex and a rag you grabbed from the kitchen is a sure fire way to shorten the life of your screen and ruin the image.

It doesn't cost much to clean it right and the keep your screen from hitting the dump prematurely.

What Shouldn't I Do?



Normally, we start off How-To Geek tutorials by introducing the topic, listing off the tools you'll need, and getting right down to emphasizing the "How" in How-To Geek. However, since so many people have been cleaning their screens incorrectly for so long, we're taking a different tact today by starting off with a list of the things you *shouldn't* do, because there's a good chance we've all done them before.

Now, before we start listing off all the things you shouldn't do to your poor screen, let us cut any protest off at the pass. Already, we can sense many a reader about to shoot back with "But How-To Geek! I use *X* on my monitor and I've never had a problem!" In that same vein, you can go ten years without changing the oil in your lawn mower. That doesn't mean that just because your lawnmower didn't seize up or otherwise fail on you, that going ten years without changing the oil is a good plan (or even remotely recommended by the manufacturer or any mechanic). We've all done dumb things with our gear but that doesn't mean we weren't lucky to avoid ruining it or that we should continue to abuse it in the future.

Never apply cleaning fluid directly to the screen. Spraying cleaning fluid directly onto your monitor or HDTV is an absolute recipe for disaster. Even though it has *never* been recommended to spray a cleaning product directly onto a monitor or television set, historically the CRT component of monitors and television sets was essentially a giant glass vessel that was, at least when approached from the front with a spray bottle, water tight. The chances of you damaging a 2″ thick 1980s-era glass monitor screen with a quick blast of cleaning fluid and a wipe with a rag were as close to zero as you can get.

That's absolutely not the case with modern screens. Flat screen monitors and HDTV sets are made with layer upon layer of material including various plastics, glasses, adhesives, arrays of display elements, and other fine and very thin materials. When liquid touches the edge of these finely layered screens that liquid can *very* easily wick, via capillary action, right up inside the layers just like water quickly moves across a piece of cloth that touches it.

The photo at the start of this section, with the horrible black blob in the corner of the monitor, is an example of what happens when liquid reaches the edge of a monitor's display panel and wicks up inside. Although the damaged spot may shrink slightly, the chances of the liquid evaporating are next to zero and the chances of it evaporating without leaving residual damage are zero.

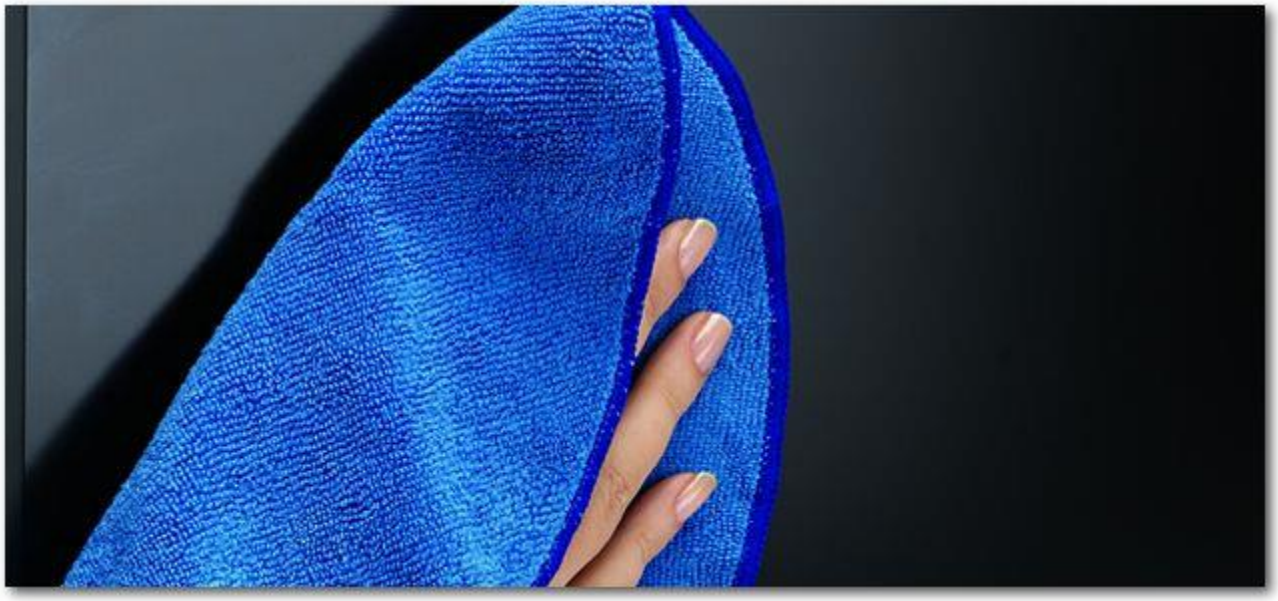
Never use alcohol or ammonia-based cleaning fluid on your screen. We understand why many people use window cleaner on their monitors, many high-end flat screen computer monitors and HDTV sets have a nice glossy glass screen. The problem, however, is that both ammonia-based cleaners (e.g. window cleaners like Windex) and alcohol-based cleaners (diluted rubbing alcohol or specialty alcohol cleaners sold in electronics stores) can strip anti-reflective coatings off screens, cause clouding, or otherwise damage the screen. Even if you have a glossy glass screen, that screen is most likely coated with things that aren't as durable and chemically resistant as glass. Don't risk using alcohol or ammonia-based cleaning fluids.

Never use paper towels or general purpose cleaning rags. At the risk of sounding like we're repeating the same caution over and over again–modern displays are *very delicate*. Paper towels are not designed for cleaning delicate surfaces, they're designed for wiping up bacon grease and hairballs; the surface of paper towel, on a microscopic level, is fairly abrasive and can lead to buffed spots and scratches on your monitor. In the same league as paper towels are general purpose rags from around the house. A single tiny spec of *anything* abrasive in the rag (e.g. a tiny sliver of metal from the garage or a hitch hiking grain of sand

from a beach trip) will wreak complete havoc on your screen. By the time you've made a pass or two with the tainted rag, you've already left a scratch in the screen.

If you can steadfastly obey these three rules: never spray on the screen itself, never use harsh ammonia/alcohol-based cleaners, and never use paper towels or household rags, you'll automatically avoid just about every cleaning-related tragedy that could befall an unsuspecting monitor.

How to Safely Clean Your Screen



Now that we've made you terrified of Windex and rags (as, on behalf of your beautiful widescreen monitor, you should be), it's time to get down to the business of properly cleaning your screens.

Before we proceed, it's worth noting that the best way to clean your screen is to avoid having to clean it in the first place. This means training your kids not to smash their snack-covered hands against the television set in an attempt to high-five Bob the Builder, and training your spouse not to tap on the laptop screen with the pad of their finger to emphasize what they're trying to show you. The less you have to clean your screen the better, and things like skin oil and other stuck-to-the-screen stuff is so much harder to get off than simple things like dust particles. That said, in even the tidiest of households, a little cleaning must occur now and then.

The Most Important Step:

Get yourself a microfiber cloth.

The following cleaning instructions are meant to be followed in order from start to finish; stop at the step that gets the job done and only proceed if there is still dust or oil on the screen that needs removal.

Prepare the screen. At minimum turn the device off, but ideally you should unplug it. Do not clean a screen until it is cool to the touch. Cleaning warm/hot screens (like those found on plasma HDTVs) makes them more difficult to clean at best and can damage them at worst.

Dust the screen. Your first step in cleaning a screen should always be to remove as much from the screen as possible without actually touching it. To this end a can of compressed air (held upright and at least a foot or more from the screen) can be used to dislodge most electrostatically-adhered dust particles. More ideal than a can of compressed air (which can potentially blast your screen with residual propellant from the can) would be to use a simple rubber dusting bulb (much like the kind we used to clean out a DSLR camera). Remember, the less you touch your screen the better.

Lightly wipe the screen with a dry and clean microfiber cloth. Microfiber is a miracle of modern technology; put it to good use. No paper towels, no kitchen towels, no household rags; only microfiber should touch your screen. For stubborn dust that won't blow off the screen and the occasional fingerprint, a simple pass with a clean and dry microfiber cloth is usually sufficient.

When wiping the screen, always avoid making circular "buffing" motions. Clean with a slow and light touch moving in as broad a motion as you can either left to right or up and down across the screen. Although the microfiber should pose little to no risk to the screen, by avoiding cleaning in small circular motions you avoid the risk of creating buffed out spots or whorl marks on the surface of the screen. Light pressure and wide movements are the safest.

Lightly wipe the screen with a microfiber cloth dampened with distilled water. While microfiber is usually quite good at lifting up the dust and oil on its own, if you need some extra cleaning power feel free to slightly dampen the the cloth with distilled water (avoid tap water as it can leave mineral deposits and film on the screen). Distilled water is available at your local grocer and is commonly used for humidifiers and irons. The cloth should be damp enough that it feels wet to the touch but not so damp that any water could be wrung out of it. Remember: you don't want a single drop of water running down your screen and getting inside the bezel.

Lightly wipe the screen with a microfiber cloth dampened with a 50/50 distilled water and white vinegar mixture. For 99% of your everyday dust and finger prints, a damp microfiber cloth will save the day. But let's say that's not cutting it because your kid tried to feed Big Bird a piece of peanut butter coated toast through the television set. This is where having an additional cleaning agent to cut through the grime is necessary. Alcohol and ammonia are out, but a mixture of 50% distilled water and 50% white household vinegar is in.

After diluting the mixture down and lightly dampening your microfiber cloth, use the same light pressure and wide movements we previously discussed. There's no need to follow the vinegar mixture with plain water or a dry microfiber cloth (unless of course you made the screen too damp — wipe up any excess moisture with a dry microfiber cloth immediately).

That's all there is to it: blow off the loose dust, only use microfiber, and never use any cleaning fluid but distilled water and/or white vinegar cut 50/50 with distilled water. In doing so, you'll avoid the liquid damage, scuffs, scratches, and clouding that have sent many a monitor and television to an early grave.