

# Dielectric TV Mirror FAQ

## **How do I evaluate the mirror?**

Hold the mirror close to your TV screen, while being careful not to scratch the screen with the corners. Notice that with the TV on, the mirror disappears and you are easily able to see through it. With the screen off, the mirror reappears against the black background and is highly reflective. It's best to evaluate the reflection from a distance—it does not appear as reflective when you are standing within a couple feet of it. Because they are very transparent, the dielectric mirrors are usually framed to cover only the screen part of the television.

## **What is a dielectric mirror?**

Thin layers of material are permanently deposited on a glass substrate. Each layer filters light at an atomic level, allowing specific wavelengths to pass through, while the rest are reflected. The TV mirrors we sell are engineered to allow most of the light from your TV to pass through unimpeded, and just enough is reflected to create a mirror effect.

## **Why does this mirror look like an ordinary pane of glass?**

The reason it looks like a regular pane of glass when you hold it away from the TV and look through it is because the visible light is overwhelming the light reflected by the mirror, making it difficult to see any reflection. Like a normal pane of transparent glass, your eyes automatically focus on the objects behind it, which are brighter than the reflection. If the dielectric mirror is too transparent for your application, we offer several other types of mirrors which may work better for your project.

## **Which side is coated?**

Both sides are equally coated. You can mount either side against the TV.

## **How much light passes through the mirror and how much is reflected?**

About 65% of light passes through and 35% is reflected. A small percent is absorbed by the glass itself (less than 6%)

## **What can be used to clean it?**

Any standard glass cleaner such as Windex works great on our mirrors, and you can wipe it clean with normal paper towels.

## **How do you recommend that we care for the mirror over time?**

The coating is durable, but it's best to keep sharp metal objects away from the material so it's not scratched. Be careful not to shatter or chip it, especially when handling it before and during installation.

## **What makes this mirror superior to your other mirrors?**

It is flatter, much more resistant to scratching, easier to clean, and allows over twice as much light through.

## **What thicknesses are available?**

We sell 4mm (5/32") and 6mm (1/4") thicknesses. 4mm is better for picture quality and 6mm is sturdier. We recommend 4mm for sizes around 40"x60" or less, and 6mm for larger projects.

## **Any other tips?**

If the mirror is installed so that part of it is hanging over the edge of the screen, the frame of the TV may show through. We recommend covering this area with black material on the back side of the mirror to make it blend in.

## **What size should I buy?**

For a typical installation, the size you'll need will be at least 0.5" longer on each side than your TV screen. You should discuss the measurements with a framer or the person doing the installation. The mirrors can be cut the same way as regular glass.

## **Where can I get more information?**

Our product catalog is online at <http://www.hiddentelevision.com>

You can reach us via e-mail at [sales@hiddentelevision.com](mailto:sales@hiddentelevision.com).

Our phone number is 419-787-4526



*TV is off – you only see the mirror*



*TV is on – the mirror disappears*



# **Dielectric TV Mirror Installation Tips**

## **Selecting a television**

We recommend that you use a LCD TV rather than a plasma, because plasma TV's can be a fire hazard if you block the heat from escaping. We recommend that you buy a Sharp Aquos, because it is light, thin, and has convenient positioning of the remote sensor and connectors in the back. Some tips to consider if you are buying a different model:

- Use a black TV, not one that is silver. Silver colored TV's will not blend in with the screen, the silver part will show right through the mirror.
- The speakers are often a different color than the rest of the TV. It's a good idea to cover them with black speaker cloth if they are going to be visible otherwise. Make sure the positioning of the speakers is not flush to the mirror, unless you plan to use external speakers.
- You do not want to block the buttons on the TV if you can avoid it. Buy a TV with buttons that are easy to access.
- The remote sensor should be close to the screen. You do not want the remote sensor separated from the screen by the speakers.

## **Heat dissipation**

After installation, it's a good idea to put a digital thermometer in back of the TV and leave it running for a while. Compare the maximum heat reading to the specifications for the TV, and make sure you are not exceeding them. If it's getting too hot, you can move it further from the wall, or install some tiny fans in back to blow the heat upwards. When constructing the frame or cabinet, make sure that the heat vents aren't obstructed and that there is sufficient air flow.

## **Mirror size**

For standard installations, the mirror should not be bigger than the size of the TV. If the visible part of the mirror is the exact same size as the screen, you don't have to worry about the TV frame blending in with the screen when it's turned off.

## **Make the TV blend in**

The back of the mirror should be covered with a thin black material except for the part which will be in front of the TV. The black material will help the screen blend in when the TV is off. If you are recessing the TV into the wall, the wall can be painted black behind the mirror. It also helps to play with the lighting and make sure there's enough light bouncing off the mirror to create the effect. Low glare makes the mirror much more transparent. In other words, high glare is helpful when the TV is off, and low glare is best when the TV is on.

## **Remote control**

The remote control sensor can be either covered by the mirror, speaker cloth, or an infrared repeater. Speaker cloth will decrease the range of the remote slightly, but you should still be able to operate it from at least 18ft away without a problem. Infrared repeaters are an excellent option if the sensor is going to be blocked by a picture frame or cabinet.

## **Mounting**

Make sure your mounting kit is strong enough to hold the weight of the TV, the glass, and the frame. For heat dissipation, you will want a mount that has a little bit of space from the wall.

## **Types of installations**

The most popular types of installations are mounting it on the wall, recessing it into the wall, and building it into a cabinet. The easiest installation is to have a frame made that is the width of the TV frame, which holds the mirror in place over the screen. The frame is attached to the TV with double sided tape or L hooks.

## **Speakers**

- Use external speakers. 2.4G wireless speakers are nice because you do not need to clutter up the TV area with excess cables.
- Build speaker cloth into the frame to allow the sound to escape. This allows you to use the built-in speakers without having to worry about cluttering up your room with speakers and cables.
- Use a TV with speakers that do not face forward. Instead, use a TV where the speakers send sound out the sides or back. This is a good solution if your frame will only be covering the front of the TV.

## **Finding a contractor**

Most of our customers work with an experienced professional to make sure the installation goes smoothly. We recommend you consult one of the following: cabinet makers, interior designers, carpenters, home builders, general contractors, architects, framers, glass companies, and other contractors working in similar areas.