



## Secrets of Selecting and Installing a Projector

### **1. How to understand projectors:**

#### **How Bright?**

The primary thing most people look at is the lumens or how bright the projector is.

Home theaters typically don't need to worry about this - they are more interested in picture quality, contrast, and color rendition.

For schools and training rooms, we like to keep the lights on, so look for a projector that has at least 3000 lumens. That way your attendees or students can still take notes while they watch the subject matter.

#### **LCD or DLP?**

These are both specific projector technologies that alter the color rendition of the projector. New technologies are coming out that include LED lamps which use less energy and last longer than the projector will.

LCD - great for power point presentations that have color.

DLP - great contrast for black and white documents, and theater buffs prefer DLP for home theater movies.

LED - new, jury is still out. Casio projectors have this technology. Since the lamp has no mercury, it is called a "green" projector. low energy draw, and no need to buy lamps!

#### **Lamps?**

Yes at some point within a year or two, your lamp will burn out if you are actively using your projector. First the projector gets dim, and finally the lamp goes out. Always be sure to have a backup lamp because, here in Honolulu, no company stocks lamps because there are hundreds of lamp designs based on the projector brand you have.

Lamps are expensive and can range from \$100 up to \$600 or so. Always price lamps as part of your projector purchasing decision.

## **Weight?**

If you are installing a projector on the ceiling - be sure to look into it's weight. anything exceeding 15lbs is possible to mount, but it gets heavy and expensive. Best to keep it on the low side: around 7lbs on average.

## **2. Installation:**

### **What will I need?**

This is the minimum you will need the following to install like a pro:

1. a wall plate that has a VGA connector, a composite video connector, and a 3.5mm audio jack. You can also include an HDMI connector on the plate.

the plate is mounted into or on the surface of a wall that you will plug your laptop, computer, dvd player or other media device. if you have more devices than these, you will need a switcher box for all of your inputs.

2. Cables - then you will need to attach long cables that run from this plate, up the wall, across the ceiling, and down to your projector. Buy the right length of each connector that will be on the wall plate. Be sure to get plenum-rated cables for ceilings where the entire space is used as ventilation returns.

3. Projector mount - a projector mount is a metal mount that attaches your projector to the ceiling. always buy a universal mount. Some folks say to get the mount that fits the projector model, but get the universal instead. That way you won't have to change the mount every time you replace your projector in the future.

4. Installing:

1. Decide where your screen or area you will be projecting will be and tape off the area.
2. Measure the distance from the top of the screen to the ceiling. Your projector + the mount needs to hang down this distance. You want the center of the lens to be aligned with the top of the screen if you are mounting from the ceiling.
3. Attach your mount to the projector and turn it on. now carefully shine the projector on the screen to make sure it fills the screen. Adjust the zoom as necessary to get this. Mark

your distance from the screen to the lens - this is where you want the projector lens to end at when you mount it.

4. Mount the projector mount on the ceiling after taking the distance you found in step 3, and adding in for the distance to the mount location.
5. Drill a hole in this location so you can pass the cables through the hole, into the pipe of the mount, and out to the projector. The hole will need to be large enough to fit the VGA cable. (your largest cable. Remember to vacuum as you drill holes in the ceiling and walls. They create a lot of dust. Dust and electronics do not go well together - so make sure you have suction as you do this surgery!
6. Add an outlet to the ceiling. Call your electrician for this - do not do it yourself unless you are a qualified electrician.
7. Pull your cables up the wall and into the ceiling. All cables should hang from the ceiling structure through wires, and should not rest on the ceiling itself.
8. Once you have connected your projector to the wall plate via the cables, test each one by plugging your media device to the wall plate. The projector should find the signal and project it onto the wall or screen.
9. Congratulations! You are now up and running!

**If you need help with this or installing speakers and other input devices with controls, feel free to contact us, we'll be happy to assist you!**

**Projectors Hawaii**

[www.projectorshawaii.com](http://www.projectorshawaii.com)