

CADESTIMATOR WALL/CEILING MOUNT DIGITAL CAMERA STAND

INSTALLATION MANUAL

**Digital Property
88 Brady Rd
Warwick, NY 10990**

What is it?

It is Digital Property's latest attempt to breach the barrier between paper blueprint and computer. It makes the process of estimating a little easier by making it faster to get paper blueprints into your computer. Once the blueprints are in CAD ESTIMATOR, you can **REDLINE** them on your computer screen to take-off material and estimate jobs.

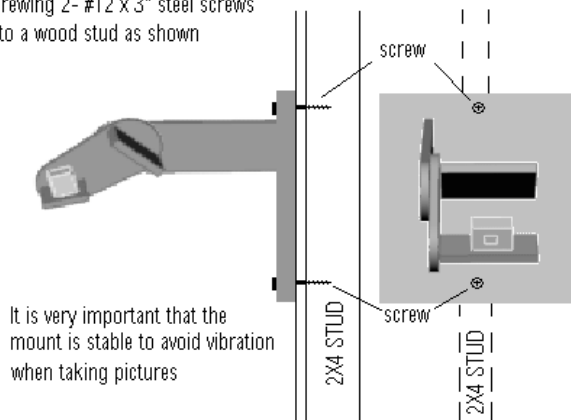
With the advent of 8 mega-pixel cameras, it is now no longer necessary to zoom in on the area of interest in a blueprint to preserve resolution and detail. It is far simpler to take a picture of the whole 24 x 36 blueprint because 8 megapixels is enough information to read everything on the blueprint.

Because the camera can now be truly stationary, it allows you to do something that you couldn't do with just hand holding the camera. You can take a blank page of the blueprint and use it to calibrate the light levels on all subsequent pages. This process takes place before enhancing the image for brightness and contrast. The end result of this process is quite remarkable. CAD ESTIMATOR does all the calculations and corrects the mirror image in a single step. However this processing takes time on your computer. The good news is you don't have to attend to any of it because it's pretty much an automatic operation. And more really good news is that the pictures come out looking like they came from CAD files.

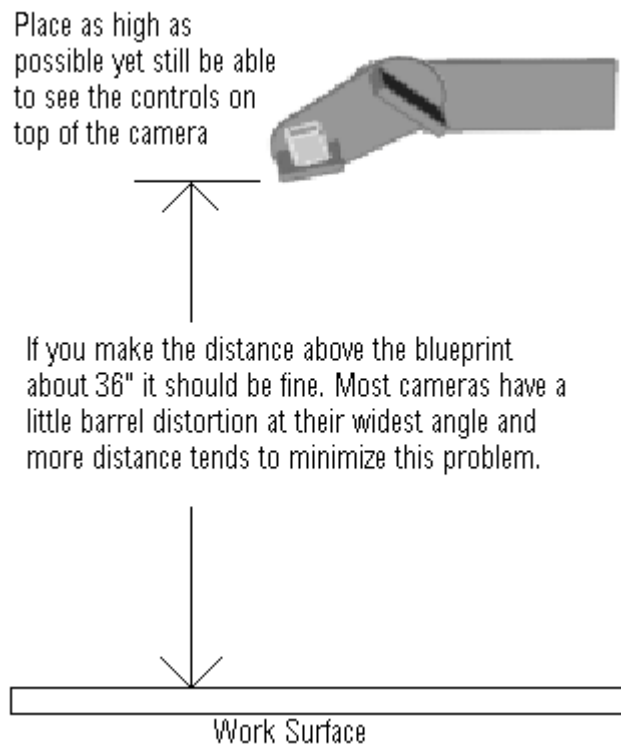
Installation Instructions

WARNING! THIS DEVICE MUST BE MOUNTED SECURELY TO THE WALL AS DESCRIBED IN THE FOLLOWING DIAGRAM.

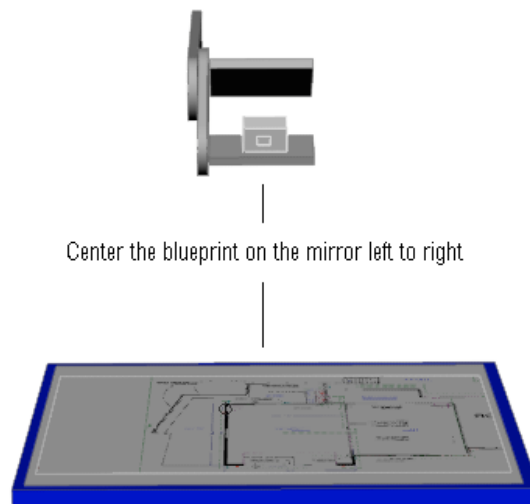
After determining the correct height from these instructions, mount the unit on the wall by screwing 2- #12 x 3" steel screws into a wood stud as shown



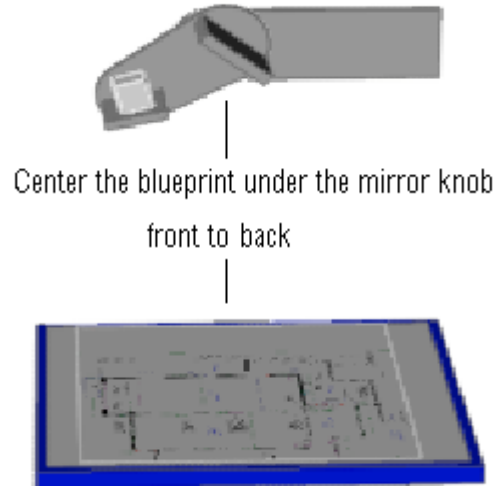
Vertical Placement of Stand



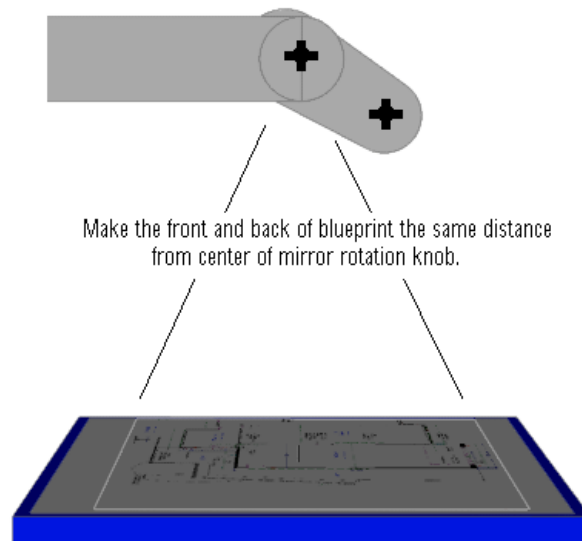
Horizontal Placement of Stand



Front to Back Adjustment of Stand

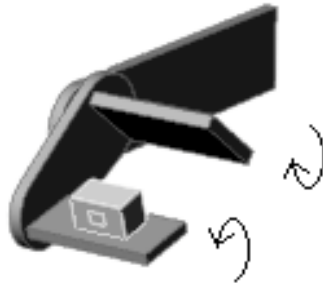


Optional Front to Back Adjustment of Stand

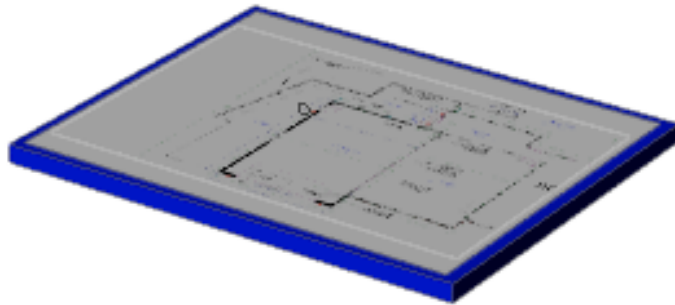


IMPORTANT: DO NOT OVER-TIGHTEN THE KNOBS !!!
JUST MAKE THEM FIRM ENOUGH TO PREVENT MOVEMENT.

Fine Tune Front to Back Adjustment



Adjust mirror and camera angles to center blueprint in camera viewfinder



General Tips taking pictures of blueprints

If your camera has a 3:2 aspect ratio then use it. Most cameras by default have a 4:3 aspect ratio, which is about the same as 35 mm in a film camera. Because blueprints are typically 18x24 or 24x36 the 3:2 setting frames the blueprint perfectly.

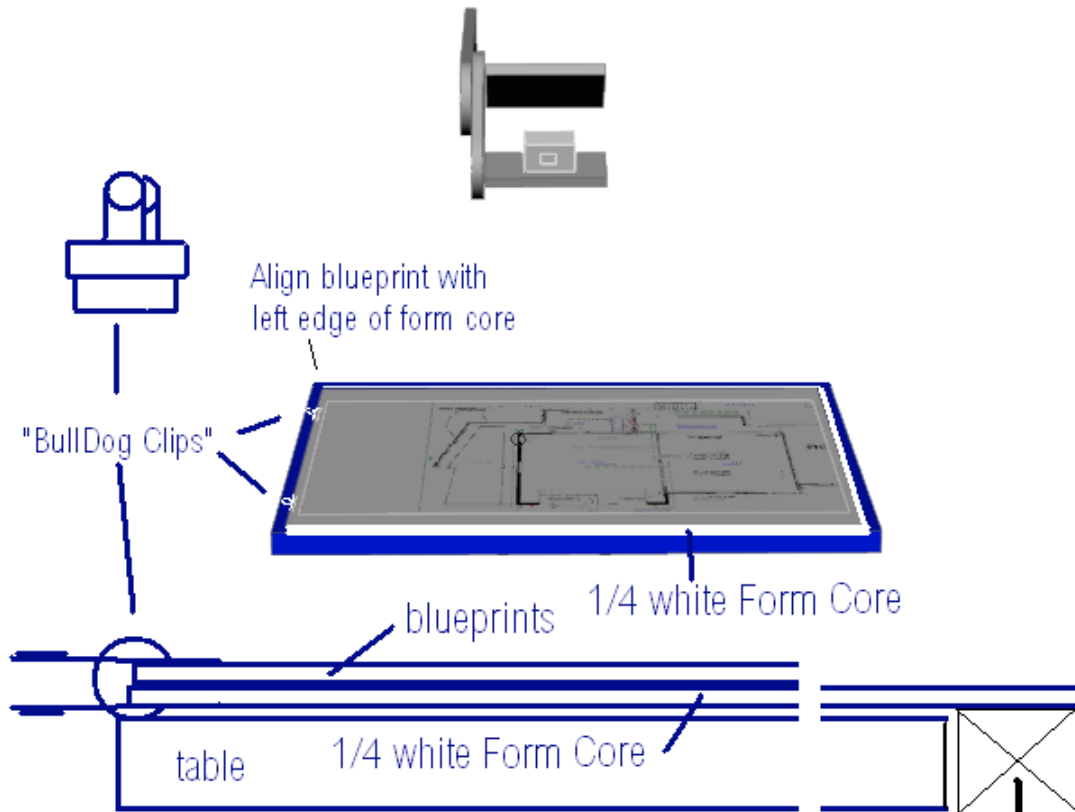
You don't need to use a Flash when taking pictures. It works better without it. It does not matter if there is shadows or brighter lights on one side of the blueprint. Because the camera is mounted on a solid stand a little longer exposure will not blur the image.

Aligning the blueprint

Once the camera stand and table have been set up accurately, you are almost done. But there are still two very important steps left. You have to have a system in place that accomplishes two things.

1. It will hold the bound left edge of the blueprints so they stay lined up with the camera stand. You have to be able to turn all the blueprint pages over so they hang off the left side of the table. Without some kind of holding device, the blueprint would simply be pulled off the table.
2. You need to have something like a piece of $\frac{1}{4}$ white form core to use as the "Mask". The mask is the first picture you take each time you bring in a set of blueprints. It can be the blank back of the blueprints, but having a white piece of foam core has some distinct advantages

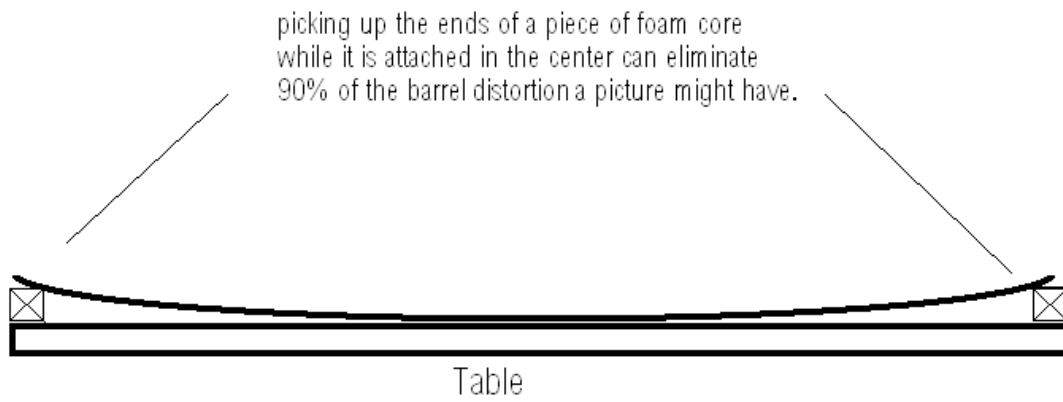
A simple piece of foam core can accomplish both requirements above.



Using a stop is one way to "index" the form core to your desk top. It does not matter what system you use as long as you can replace it to the exact position each time without a hassle.

Correcting Barrel Distortion with foam core

Foam core can come in handy for another reason. Fixing barrel distortion. Barrel distortion is visible in most digital cameras at their widest angle setting. This fix does not entirely eliminate it but can make an otherwise unusable picture into an acceptable one.



Getting the Pictures into CAD ESTIMATOR

First a little theory on CAD ESTIMATOR. You need to create a job before you can add pictures to it. So where is the best place to store images from your camera so you can easily get them into your jobs?

There are three main ways to get pictures into a job.

The first way is the simplest, go to the PLAN ROOM, go to GET PICTURE , click on the FIND button and navigate to them.

But this may not work with your digital camera. It may need to transfer pictures before you can get at them or you may have to specify a destination to transfer the pictures to. In which case you may need to get pictures in the second way.

The second way is to simply place the pictures into the job itself. In order to do that, you need to know how CAD ESTIMATOR stores jobs. Every job is stored under the main program folder "C:\CADEST". Each job has its own folder under the cadest folder.

To go to where your jobs are stored, do the following

Dbl-click "my computer"
Dbl-click the main hard drive C:\
Dbl-click on the "CADEST" folder

All the folders listed under the "CADEST" folder (except the DATABASE folder) are jobs. To enter a job's folder, simply Dbl-click on it. Now you can paste files you have copied from another location directly into the job itself.

Once you have copied pictures into a job's folder, you'll see them when you go to the PLAN ROOM and select the GET PICTURE button.

To process all the jpeg images click on the FILE menu in GET PICTURE and select "GET ALL JPEGS WITH MIRROR AND MASK"

When the processing is finished, you'll be back in the plan room with all the pictures.

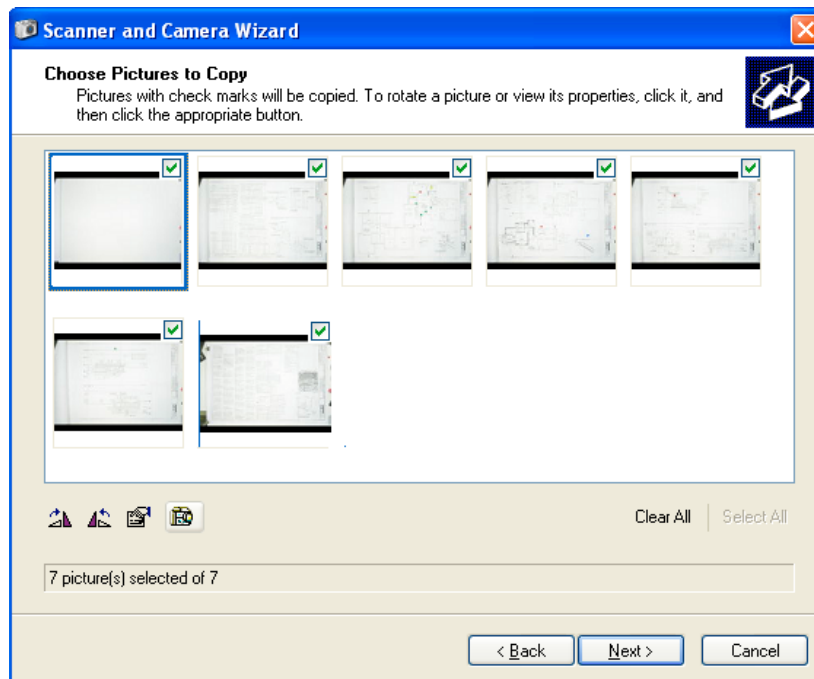
The third way to get the pictures in is far easier than the first two mainly because of the "Camera/Scanner Wizard" that comes with XP and 2000.

Using the CAMERA/SCANNER WIZARD

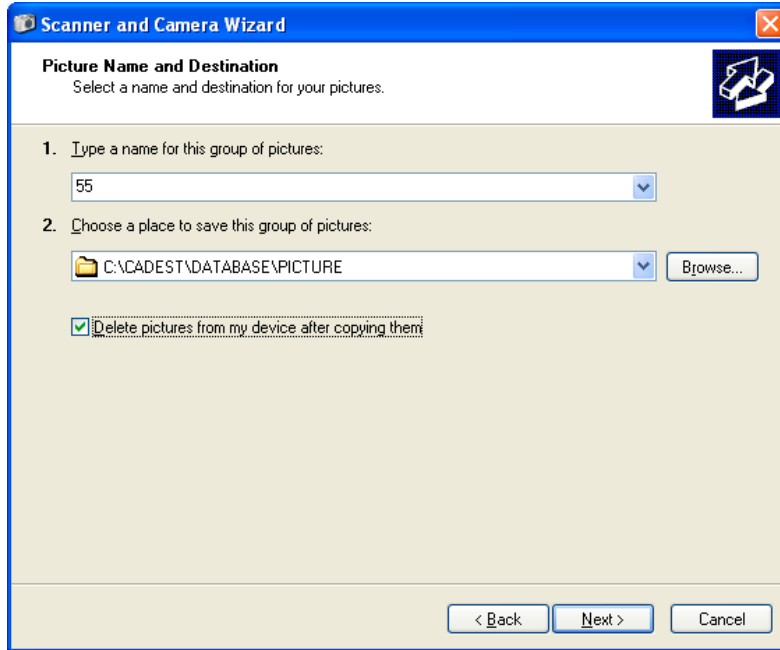
Whenever you plug a USB camera into windows XP it automatically opens up the camera/scanner wizard.



If you have already taken pictures before you plugged it in, you will probably see something like the following.



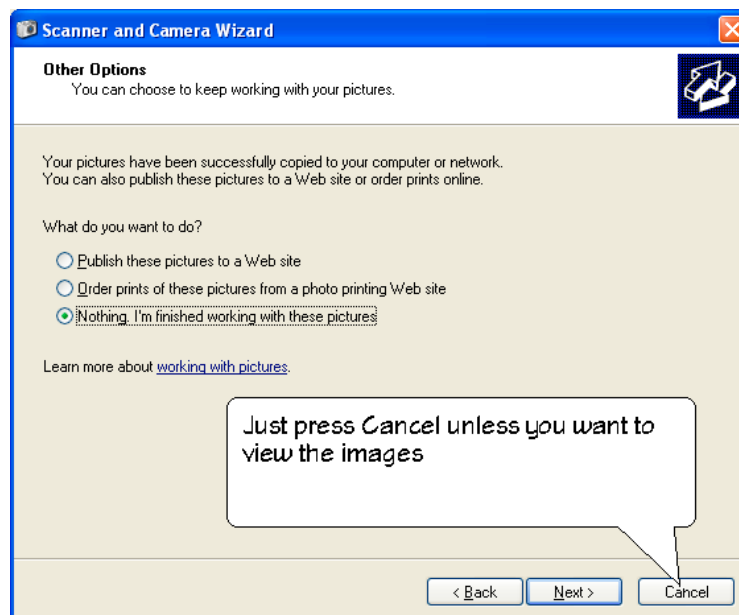
Click on the NEXT button to proceed to the following screen.



Set #1 to a different number or name each time you use the wizard, continually using the same name or number can cause problems with files in windows. Simply having a number there and incrementing it each time you use the wizard is simple enough.

Set #2 to what it shows in the picture C:\CADEST\DATABASE\PICTURE

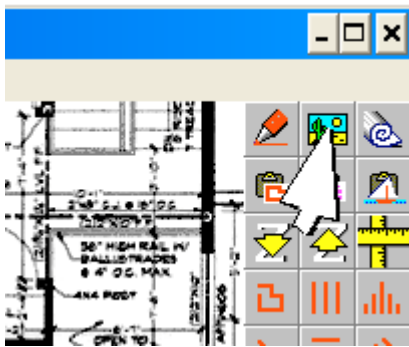
Unless you want to manually delete the files from the camera, **ALWAYS** select the **Delete pictures from my device after copying them** . It leaves the camera ready for the next job.



Accessing images imported using the CAMERA/SCANNER WIZARD

The Wizard is one side of the equation, the second part is how CAD ESTIMATOR takes it from there.

You may need to do an Internet update in order for the following to work
In the take-off room, hold down the shift key and click on the “get picture” icon at the top center of the graphics toolbar



You will receive a message something like:
THE MIRROR PROCESS IS TURNED ON/OFF

Set it so the MIRROR PROCESS IS ON

Normally this icon takes you directly to GET PICTURE (bypassing the plan room). By turning on this process, you are telling CADESTIMATOR that when you click this button, you want it to check if the camera wizard has placed pictures in the C:\CADEST\DATABASE\PICTURE folder and if so, move them to this job and begin processing.

To Summarize: After you have taken all the pictures, plug the USB from the camera into the computer and the XP CAMERA wizard pops up. Click through the wizard to transfer all the pictures to C:\CADEST\DATABASE\PICTURE Once the wizard has closed go to the TAKEOFF ROOM and click the GET PICTURE icon on the graphics toolbar. All pictures will be processed automatically from that point.