

http://www.hauntedillinois.com/h7.php

### **Metamorphosis Box**

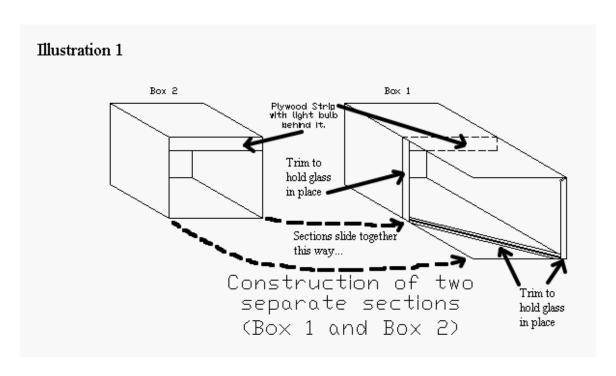
(aka Pepper's Ghost)

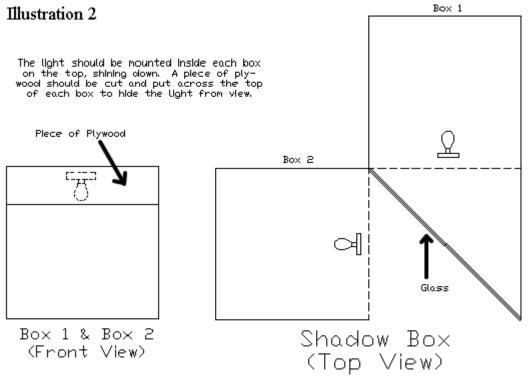
This is a great effect, but it takes some time to build. I worked in a haunted house in Genoa, IL for four years and we had this box as a display for a year or so. After that, we used it as a window display in our home. It is really amazing. All of our customers were amazed and no one could figure it out! Here is the effect. The audience looks inside a large black box at an object (pumpkin or whatever), then slowly the object (within full view of the spectators the whole time) morphs into another object!

Like I said, this one is a little time consuming to build. Each one of the three sections of our box was 3 x 3 x 3 feet. This was one huge display. Here is how to do it.

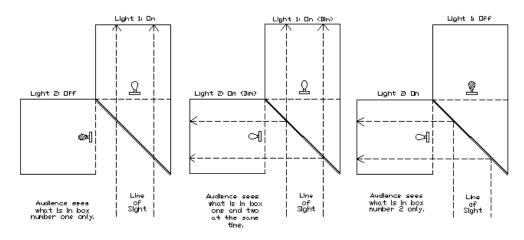
- 1. Box 2: Box 2 is going to be a 3x3x3 foot cube made from 1/2 inch plywood. If you want this to be a permanent effect, you may want to use thicker than 1/2 inch plywood. Build Box 2 (as shown in Illustration 1) with one of the sides open (we'll call this the front of the box). Inside the box, on the top piece of plywood, attach your incandescent light fixture and screw in a bulb. Cut a strip of plywood 3 feet long by about 6 inches wide and attach it to the top of the opening of Box 2. This strip will hide the light from view (See Front view of Illustration 2). The width of the strip may vary according to the size of the light fixture. The important thing is that the whole fixture and bulb are hidden from view.
- 2. Box 1: Box 1 will be built a little different than box 2. The left side and back panels will be approx. 3x3 feet; however, the top, right side and bottom panels will all be approx. 3x6 feet. I say the measurements are approximate because you will have to adjust your measurements to account for any overlap of the panels when you put the pieces together. As with Box 2, you will also need to mount the light fixture, light bulb and plywood strip on Box number 1 (See Illustration 1 for a general view of the completed Box 1 and the Front View of Illustration 2 for a drawing of how the light fixture and plywood strip are mounted.).

- 3. Painting: In order for the effect to work, all of the inner and outer surfaces need to be painted flat black.
- 4. Glass: To mount the glass you are going to need to attach several pieces of thin trim so the glass will stay in place (See Illustration 1 for locations where you need to put the trim pieces).
- 5. Put it all Together: After you put in the glass and add all the trim, you need to swing Box 2 around and attach it to Box 1 as shown in Illustration 1 and 2.
- 6. The Dimmers: See Illustration 4. You need two identical wall mount light dimmer switches to make this work. Mount the switches face to face (as shown in Illustration 4) and connect the shafts together. I used an aluminum coupling piece with set screws to accomplish this. You can use your imagination. Connected in this way, when one light dimmer is turned up, the other is automatically turned down.
- 7. Morph: This is how the effect works. Let's start with Light 1 on and Light 2 off. The audience can see the object in Box 1 only. As you turn the knob, Light 1 gets dimmer and Light 2 gets brighter. Now the audience sees the object in Box 1, as well as what is in Box 2 (because Light 2 is on, the audience can see the object in Box 2 through the reflection in the glass). As you turn the knob further Light 1 turns off and Light 2 is on. Now the audience sees only the object in Box 2 through the reflection in the glass. MAGIC!!! See Illustration 3. You may have to experiment with the wattage combinations of the light bulbs (since the reflection will not be as bright of an image as just directly seeing an object, Light 2 may have to be a slightly higher wattage to make the effect look more natural.
- 8. Extras: In our haunted house and in our window display, we incorporated a worm-gear drive and reversible motor circuit with the dimmer set-up in Illustration 4 so that it would operate automatically and turn the dimmers back and forth.





#### Illustration 3



#### Illustration 4

