

TEMPLATE INSTRUCTIONS

CUSTOM BRASS TEMPLATE INSTRUCTIONS CONTOUR PROJECTOR

Cutting brass confinement templates has always been a mystery to most people trying to install projectors and therefore left to professional installers, adding frustration and cost to the project. The Phantom Contour Projector is designed with the installer in mind and cutting confinement templates has never been easier. Sure, practice makes perfect but that can only be made simpler by knowing the tricks of the trade.

The confinement template or brass slide is designed to allow you, the installer, to illuminate single objects, multiple objects and irregular shaped objects by cutting an opening in the slide. Theoretically, as long as the object is within the projected field of light, the object can be illuminated. However, there are limitations due to focusing in extreme situations. Until you get your feet wet, keep things simple. Above all, remain calm as this will be a frustrating experience the first time. After one or two, you'll be cutting templates like a pro. So take your time, take a deep breath, have some fun and enjoy the results!

Please refer to **PROJECTOR SUPPLEMENT** for selecting lenses and beam angles.

The following instructions address some basics steps of the template cutting process:

1. Orientation of brass slide in the projector
2. Orientation of brass slide when cutting
3. Finding target on the wall
4. Tracing the slide
5. Establishing straight lines
6. Cut one side at a time
7. Flexing the slide
8. Filing instead of cutting
9. Wedging the slide

ORIENTATION OF SLIDE IN THE PROJECTOR — FIGURE 1

It is absolutely critical to the adjustment process that you install the brass slide correctly into the projector each time. Remember, that all projected light is upside down and backwards. Don't worry; I just want you to be aware of what is going on.

Start by positioning the brass slide in the gate (between the black tapered frontal cone and the silver template ring) with the notch on the top left, facing the art on the wall. This will be your position every time you remove and reinstall the brass slide. Otherwise, you will cut the wrong side, spill the light onto the wall and have to start over. So pay attention to this detail.

ORIENTATION OF BRASS SLIDE WHEN CUTTING — FIGURE 2

Remove the brass slide from the projector and rotate the brass slide clockwise without flipping the slide. The notch should now be on the bottom right hand corner. This will be your position every time you cut the brass slide. Otherwise, you will cut the wrong side, spill the light onto the wall and have to start over. So pay attention to this other important detail.

Hint: I like to scribe on the brass slide with my scissors the letters T, L, R, and B for top, left, right and bottom around the opening. This is a good safety net and reference point when cutting. **FIGURE 2b.**

FINDING TARGET ON THE WALL — FIGURE 3

Cutting a brass slide confinement template involves the trial and error method. That means you simply cut or punch a small hole in the brass slide to find the target and or targets on the wall. Once you have positioned the light on the art, make a few cuts to see what happens. The goal is to establish straight lines.

Hint: This is also a good time to double check and set the focus. Double check and tighten all mounting screws. Check that the cover plate fits flush with the ceiling and does not hit the projector body or front cone. If so, you may have to reposition the projector before cutting the brass slide.

FIGURE 1



FIGURE 2a



FIGURE 2b

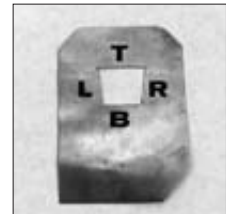


FIGURE 3a



FIGURE 3b



FIGURE 3c



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TRACING THE SLIDE — FIGURE 4

Position your brass test slide over a new slide in the cutting position. Carefully scribe the opening shape using your scissors onto the new brass slide.

Hint: It is best to use a good flat surface such as a metal plate or piece of ceramic tile to make things easier when tracing and rubbing the brass slide.

ESTABLISHING STRAIGHT LINES

Reinstall the test slide into the projector and make the necessary adjustments to your new slide to fine tune the projected image and establish straight lines. This is a good time to make some big cuts with goal of covering the majority of the art with light. Take a third slide, trace your second slide and repeat as many times as necessary until you get it right.

CUT ONE SIDE AT A TIME

Finish one side before going to the next. This will ensure that you have the brass slide in the same position each time it is removed and replaced. The slide may be cocked to the left or right as you will see. Find the best position and stick with it throughout the cutting process.

Hint: It is absolutely critical that you position the slide the same way each time you take it in and out and establish a reference point on the art. If it just doesn't look right, reset the brass slide until you get it back into the reference position.

FLEXING THE SLIDE — FIGURE 5

It is a good idea to gently rub the edge of the brass slide with your scissor handles to prevent the brass slide from becoming bent or tearing when going in and out of the projector during the cutting process.

It is also possible and often necessary to manipulate the projected image by rubbing the brass slide more firmly. This is called flexing the slide. Rubbing on the side towards the art, forces the slide to bend inward, closer to the condensing lenses, which causes the projected image size to reduce. Consequently, rubbing on the back side of the brass slide, causes the slide to flex towards the focusing lenses, resulting in a slightly larger image. This is good technique to use when you have a small spill to deal with on the wall.

Hint: Flexing the slide does change the projected image. Be careful after flexing that you do not over cut a side of the brass slide that was previously finished. This may result in having to start over.

FILING INSTEAD OF CUTTING — FIGURE 6

If you plan to do this often, you may want to pick up a set of small jewelers files from your local Radio Shack. These files come in assorted shapes and are very helpful when making small adjustments or working on irregular shaped objects, such as sculptures. Some custom brass templates can only be done with jeweler's files as it would be impossible to cut the shape with your scissors.

WEDGING THE SLIDE — FIGURE 7

Once you have completed cutting the brass template, it is time to wedge it into position. This will hold the slide in the desired position and prevent the slide from rocking or moving around in the projector. Insert small wedge into template slot and press into place with a small screwdriver or tip of scissors. If this affects your projected image, it may be necessary to reposition the template and insert the wedge in a different location.

FIGURE 4

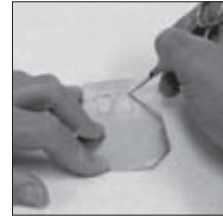


FIGURE 5a



FIGURE 5b

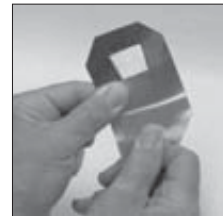


FIGURE 6a



FIGURE 6b



Figure 7

