



Directions for Using the Sink Drain Kit

For hole sizes 1-1/2" to 2-1/8"

When beginning with a new glass bowl there are these obvious steps:

1. Find the exact bottom of the curve, or chose another drain position.
2. Drill a hole for the drain.
3. Countersink the hole for the drain to set into.
4. Attach the drain.

With any of these steps, I will not presume the user's level of proficiency, and will therefore try to explain these steps in detail.

1. To find the precise bottom of the interior curve may be simple, presuming the inner curve is uniform. First make sure that the rim is level, presuming that you want the sink to appear straight visually. Then place a marble or a ball bearing in the bowl and it should come to rest at the lowest point in the curve. Mark this spot and do the process again a few more times to confirm the actual bottom of the curve. Now make a circular mark on the bottom of the bowl on the inside surface in the sizes 2 inch diameter and also 1 3/4 inch diameter. These markings should and must be waterproof! The 1 3/4" circle will be to guide where the drill will 'cut' into the glass. The 2" circle will be the outer dimension of the countersink bevel to accommodate the drain fitting, presuming the drain is 2" in diameter. It may be feasible to apply a layer of good quality masking tape to draw the circular lines onto with a permanent marker.

2. Now carefully drill the 1 3/4" hole for the drain using a drill that is easily controlled making the hole straight and on-line with the circles previously marked. (Cordless drills are most commonly used as there is the requirement for water to be present in the drill-to-glass contact area for necessary cooling at the drill contact point. And cordless is always safer in wet applications!) Note: it may be advisable to test drill on an expendable piece of glass if this is a new process for you. Also you should use a light pressure when drilling and a slight up and down motion to allow the water to do the job of cooling and flushing out of the cut. Replace the water if you can not see the lines while getting started in the drilling process, but

once the drill is in the 'groove' the seeing may be less necessary. Lastly I would encourage you to go very slowly as the drill approaches the far side of the glass. These types of drills will invariably produce some chips on the exit of the drill, but drilling lightly and slowly may minimize those chips.

3. The 'countersink' tool in this kit is the diamond plated, flat beveled tool that also is used in your cordless hand drill. You will note that there is a place to mount a 'guiding' disk on the flat surface of the tool. This is the optional 'hole-guide' that you will need to make and attach if desired. It will assure you that the bevel is perfectly centered on the hole. The guide mounts with a 1/4"-20 bolt. This guide can simply be a piece of 1/4" plastic, shaped by you for greater precision, but countersink may also be used without the guide if desired. NOTE: this beveling step also requires the use of water as a cooling agent. Since there is now a hole in your sink this will require running water for the entire countersinking process. Also note the importance of making this countersink grind as straight as possible. This will be the surface the drain will set upon. You must carefully determine how deep to grind the countersink as if it is too shallow the drain will remain above the bottom of the sink's interior surface (this will not allow the sink to properly drain). If the countersink is in too deep this may be visually unappealing (but it will drain really well). And don't forget the necessity for the installer to use a proper amount of 'plumber's putty' to seal the drain where it attached to the glass bowl.

4. The finished hole should accommodate the drain when properly installed with a leak preventing type of 'plumber's putty'. This step is best done at the time of actual installation.