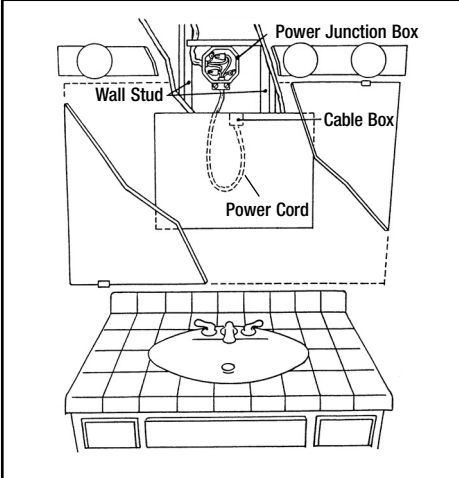


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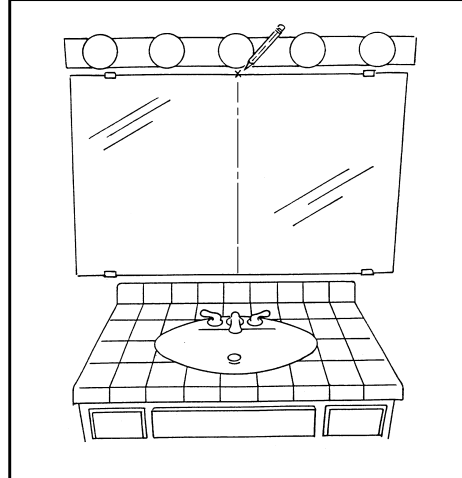
CRL Clear View™ Electronic Mirror Defoggers

FIG. A



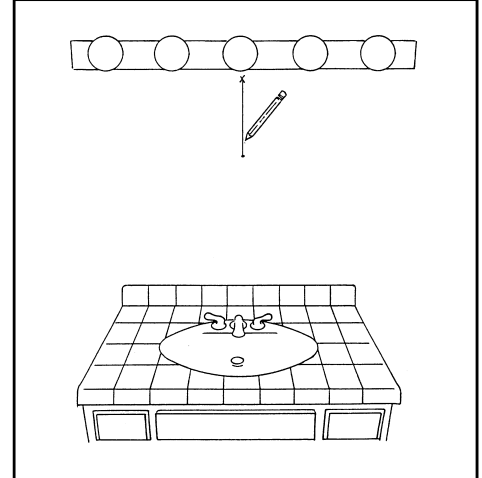
Cut-Away view showing Defogger installed centered over wash basin. Note Defogger cable box is positioned between same two wall studs as is the power junction box for ease of routing cable.

FIG. B



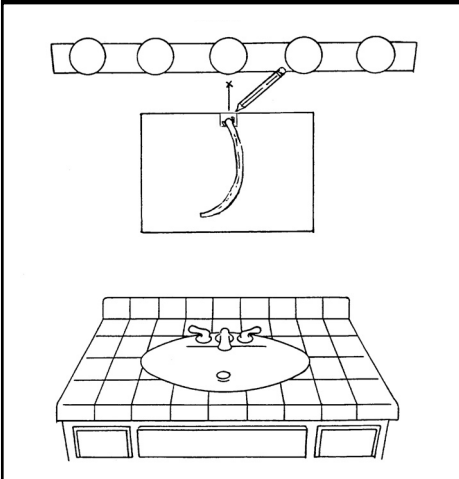
Mark mirror top edge and corresponding point on wall directly in-line with the wash basin faucet.

FIG. C



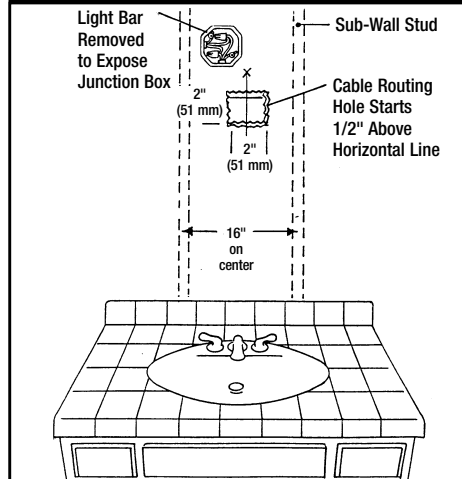
With the mirror removed, draw a vertical line down the wall, starting from your original mark, to the level of your lower chest.

FIG. D



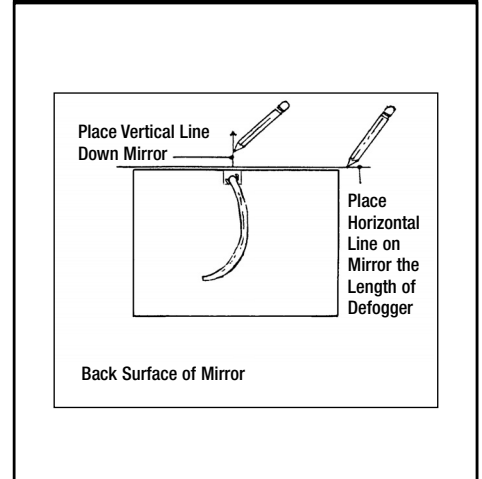
Hold and center the Defogger over the vertical line. Adjust Defogger to a desired height and draw a horizontal intersecting line on the wall along the top edge of the Defogger, the length of the Defogger cable box.

FIG. E



Cut a 3-1/2" hole for cable routing after determining it will fall between same two studs as does the junction box.

FIG. F



Align Defogger on mirror's back surface in preparation for bonding. Note: cable box is centered to vertical line and Defogger is placed along parallel horizontal line.

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IMPORTANT: PLEASE READ BEFORE BEGINNING INSTALLATION

INSTALLATION INSTRUCTIONS:

COMPANY MESSAGE:

Thank you for choosing the Clear View™ Electronic Mirror Defogger. At C.R. Laurence Co., Inc. we know once your customers start enjoying the benefits of this innovative product, they'll wonder how they ever managed without it.

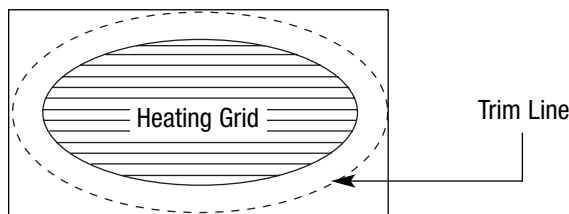
PRODUCT OVERVIEW:

CRL Clear View™ Electronic Mirror Defoggers are designed to clear the critical area of a standard flush mounted (non-cabinet style) bathroom mirror, with a minimum thickness of 3/16" (5 mm). We recommend that to achieve maximum benefit you center the Defogger over the wash basin. All of our Defogger shapes are designed to provide you with comfortable lateral, as well as vertical coverage. Your Defogger can also be mounted in a vertical fashion, if so desired. The "hardwire" (non-plug-in) connection ensures that the aesthetic integrity of your bathroom is not compromised. The adhesive surface is designed to be bonded directly to the back surface of the mirror.

SAFETY POINTS: PLEASE READ BEFORE BEGINNING INSTALLATION

1. Your Defogger is designed to be used as a bathroom mirror defogger only. Install in accordance with these instructions. Any other use is not recommended, and will void the warranty.
2. Installation is not difficult and conforms to standard industry practice. As with any electrical product, we do recommend installation be performed by a qualified person, in accordance with local codes. Remember to disconnect power at the fuse breaker panel before removing your light fixture.
3. Upon removing the Defogger from the package, please check its exterior for any possible shipping damage. If such is found, do not install the Defogger, rather return it for exchange.
4. Round and oval Defoggers should have excess adhesive backing material trimmed, but not closer than 1" (25 mm) from the electrical heating grid component.

Example:



INCLUDED IN YOUR PACKAGE IS:

1 each Clear View™ Electronic Mirror Defogger with cable for wood framed construction only; 1 each Installation Instruction Sheet.

RETRO-FIT INSTALLATION: (e.g. bath renovation, mirror upgrade, or when attaching to existing mirror)

The following installation procedure is based on a typical scenario where a light fixture exists over the bathroom mirror, and where that light fixture is connected to an electrical junction box positioned sub-wall behind the light fixture. Note: Situations will vary, so be sure to take the time in advance to identify your most accessible power connection point, then plan ahead. Again, installation is not difficult and common sense prevails.

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PROCEED AS FOLLOWS:

- Step 1:** If you are upgrading your mirror, that is replacing an existing one with a new mirror, mount the mirror first, secure it to the wall, and verify that you have an air space of at least 3/16" (5 mm) between the mirror and the wall surface. Make adjustments as necessary. This air space is not only good for the product, but also for your mirror. Ensure the mirror is in what will be its final mounting place before going to Step 2. Our recommendation is that you install the Defogger so it will be positioned centered over your wash basin, and placed at the height that will give you maximum coverage, keeping in mind the tallest member of your family. See suggested placement in Fig. "A", Page 4.
- Step 2:** With the mirror positioned in what will be its final position, place a pencil mark on the top edge of the mirror and the corresponding wall surface, both marks directly in-line with the wash basin faucet (Fig "B", Page 4). These two important reference marks will be used to guide the placement of a vertical alignment line on the wall and mirror. This will then be used for pinpointing where on the wall your cable routing hole should be cut, and where on the mirror the Defogger should be attached. Corresponding placement of the hole in the wall, and the Defogger on the mirror, will allow the cable box to fall into the wall cavity when the mirror is remounted. This will ensure the mirror will sit flush in its mounting clips.
- Step 3:** With the wall and mirror well marked, remove the mirror from the wall. Now take your pencil and draw a vertical line down the wall starting from the mark you placed to about the level of your lower chest (Fig "C", Page 4). Now take the Defogger and hold it against the wall, centering the cable box so it crosses over your vertical line (Fig "D", Page 4). Next adjust the Defogger to a height that will serve users best, keeping in mind the tallest user in the household. While holding the Defogger in this position against the wall, draw a horizontal intersecting line on the wall, along the top of the Defogger, the length of the cable box, passing through your vertical line. Where the horizontal line intersects on the wall with the vertical line will be your proposed placement point for the cable routing hole.
- Note:** Before cutting this hole, make sure you are not over a wall stud, or within possible contact with any other electrical wires or plumbing, and that the proposed placement point falls between the same two studs as does your power source (See Step 4). Before cutting your cable routing hole it is important to make sure that the hole is going to be low enough on the wall that it will be completely covered when the mirror is mounted. You can determine this by referring to your original mark on the wall that denotes the top edge of the mirror. If you think you will be cutting too close to this mark, simply move the hole mark down a little. Remember that the hole will actually be a little larger than the cable box.
- Step 4:** Now confirm that your proposed placement point for the hole falls between the same two studs as does the junction box. Start by removing the light-fixture and exposing the junction box (remembering to shut the power off first). Next, proceed to identify wall studs located to the left and right of the junction box.

Wall studs are typically 16" (406 mm) apart on center. If you don't possess a "stud finder," simply look for drywall screw head blemishes on the wall surface, these will reveal a stud's position. You can confirm a suspected stud location by tapping a small-finished nail into the suspected location. Once you have confirmed the stud's position measure across 16" (406 mm) to locate the second one, and mark it also. Now look to see if both the junction box and your proposed hole placement point are between the same two studs. If they are not, move your hole placement mark to the left or right, just enough to bring it in between the same two studs, as is the junction box. Keep in mind the more you move the mark, the further you are moving away from the suggested ideal location (centered over your wash basin) for the Defogger. Again these installation suggestions are based on the common bathroom scenario as depicted in Figure "A", Page 4.

- Note:** If you did move your hole placement mark on the wall from its original location, remember to move the mark on the top edge of the mirror the corresponding amount. Now is a good time to draw a soft pencil line down the back of your mirror starting from the mark you've placed at the top edge (Fig "F", Page 4). Next, place a horizontal line (the full length of the Defogger) across the vertical line, making sure its' distance down the mirror will correspond with the horizontal line on the wall. You can do this by measuring the distance from the mark on the wall that represents the top edge of the mirror, down to the horizontal line on the wall. Take this measurement and measure the same distance down the back of the mirror, along the vertical line, starting from the top edge of the mirror. Then draw the necessary intersecting horizontal line on the back of the mirror, again the full length of the Defogger. Important! Make sure this horizontal line is drawn parallel to the top edge of the mirror. This horizontal line will be used later as a guide to ensure that you attach the Defogger squarely on the mirror.

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- Step 5:** Now cut a 2" (51 mm) square cable routing hole into the wall where you placed your final marks (Fig "E", Page 4). Start the hole 1/2" (13 mm) above your horizontal line. If you do not possess a cutout saw, your flat blade screwdriver can be used by punching small holes into the drywall around the perimeter line of the hole. Then punch out the resulting drywall hole slug. At this stage take the Defogger and confirm the routing hole you just cut is large enough. Do this by feeding the cable into the wall cavity, followed by the cable box. While holding the Defogger flat against the wall, make sure the hole will allow the Defogger to sit horizontal and parallel with what you visualize as the top edge of the mirror.
- Step 6:** Bonding Defogger to mirror: Prepare the back surface of the mirror by wiping it down with warm water using a clean cloth. Do not use any type of abrasive cleaner. It is extremely important to ensure that the surface is free of oil residue or light dirt that might have collected on the back surface. After cleaning, make sure the surface is dry by wiping it down with a cloth or paper towel.
- Note:** Avoid placing hands on the cleaned surface area and make every effort to maintain its cleanliness. To make sure you will be accurately and squarely bonding the Defogger to the mirror, temporarily position it along the horizontal line, adjusting the Defogger so it just touches the horizontal pencil line you've made (Fig "F", Page 4). Make sure the cable box is centered to the vertical line. Then take your measuring tape and confirm that both top corners of the Defogger are the same distance down from the top edge of the mirror. If they are, you are parallel with the top of the mirror.
- Note:** When mirrors are manufactured the back surface is coated with a special paint that covers and protects the mirrors' sensitive silver coating. It is estimated that 90 percent of mirrors are manufactured using a paint application process that leaves a very smooth painted back surface, which lends itself very well to bonding. A small percentage of manufacturers use a paint coating method that leaves a textured surface that, depending on the depth of the texture, does not lend itself as well to bonding. If you have such a mirror, advise your dealer before beginning installation so you may be informed of the latest recommendations concerning bonding to this type of backing. The textured surface is easily identified by its "wood grain" appearance and textured feel. When you are ready to make the bond, we recommend that you peel back only half the liner and bond that side first. You can further increase your chance of bonding the Defogger squarely along the horizontal line by taking masking tape and taping one end of the Defogger to the mirror, then bonding the opposite half by first aligning the unit at the top, then remove the tape in diagonal directions. Then remove the masking tape and bond the other half to the mirror. We recommend smoothing the Defogger into place using a cloth. Note: Small air pockets will not affect the operation of the Defogger. In the event you find that you have not installed the Defogger squarely, the special adhesive will allow you to reposition it at the early stage of bonding if necessary. Once you have completely bonded the Defogger, take a minute to apply additional moderate pressure against the Defogger with a cloth, moving back and forth across the surface. Pay special attention to achieving a good bond to the mirror surface behind the cable box, as when the Defogger is installed, feeding the cable into the wall cavity can put stress on this point. The more time you take now, the better bond you will achieve.
- Step 7:** Connecting the cable to the power source: Do not shorten the cable, it has been purposely supplied with extra length for ease of product installation. The excess cable should be simply placed into the wall cavity. Use twist connectors as required. The Clear View™ Electronic Mirror Defogger is manufactured with industry approved cable and uses standard color-coding.
- Note:** Avoid use of mirror mastic to secure mirror to wall whenever possible. This will allow access to the Defogger later should it become necessary. Once you are prepared to make the connection, start by lifting the mirror onto the counter top. Have an assistant hold it steady while you "fish" the cable into the junction box and make your connections. Be sure to make a good ground connection and to double-check it. Once the Defogger is connected, lift the mirror onto the bottom mounting clips while feeding the excess cable into the wall cavity. With the mirror top tilting outward, maneuver the mirror closer to its final position while continuing to feed the cable into the cavity. Be sure all of the cable is tucked into the cavity to allow flush mirror attachment.
- Note:** Make sure while you are maneuvering the mirror into place that no stress is applied to the cable where it will pull on the cable box. This could loosen the adhesive bond to the mirror at that point, and reduce heat transfer to that area.
- Step 8:** Re-install the light fixture and you will have completed the installation. Test the Defogger immediately.