

# ThermoClear™ Mirror defogger

Congratulations on the purchase of your **ThermoClear™** Mirror Defogger. **ThermoClear** keeps mirrors fog-free, crystal clear even after long, hot showers. No more steamed up mirrors, no more wiping and smudging mirrors to keep them clear. **ThermoClear** low-wattage mirror defoggers are energy efficient and easy-to-install to the back of your bathroom mirror. Simply turn on the lights and **ThermoClear** provides a crystal clear, steam free mirror.

- Low wattage power directly warms the mirror's surface using very little energy.
- Warm temperatures on the surface of the mirror prevent the accumulation of steam and moisture. We recommend covering at least 60% of your mirror with **ThermoClear**.
- Prevents moisture damage to metalized mirror frames and finishes.
- Eliminates wiping and cleaning mirrors of fog and steam.
- Eliminates the possibility of mirror breakage due to wiping.
- Easy-to-install.
- UL listed.



## SIZES AND ELECTRICAL SPECIFICATIONS

<u>Mirror Defoggers - Rectangle</u>				
<u>Item #</u>	<u>Dimension</u>	<u>Voltage</u>	<u>Watts</u>	<u>Amps</u>
MD-1624-RC	16" x 24"	120 VAC	46	.4
MD-1826-RC	18" x 26"	120 VAC	57	.5
MD-2432-RC	24" x 32"	120 VAC	96	.8
MD-2436-RC	24" x 36"	120 VAC	108	.9
MD-3040-RC	30" x 40"	120 VAC	150	1.3

**SAFETY RATINGS:** UL listed in compliance with UL Standard 499.

**GFCI:** The electric supply circuit to the mirror defogger must include a ground fault circuit interrupt.

### SAFETY INFORMATION

- All wiring must be in accordance with the National Electrical Code (NEC) and should be performed by a licensed professional who is certified to do electrical wiring.
- Make sure that the electrical circuit breaker is shut off at the main panel before wiring your mirror defogger.
- Never place your 120 volt mirror defogger inside a shower, sauna, or steam room.
- Check the mirror defogger for damage before installation. Cuts, creases or other obvious damage may render the product useless.
- You may trim your mirror defogger pad up to  $\frac{3}{4}$ " away from the heating element.
- Do not overlap mirror defoggers if you are using more than one **ThermoClear™** on a mirror.
- Never cut or resize the mirror defogger.
- Use caution with all electrical appliances.
- Install in compliance with these instructions.

### CLEANING INFORMATION

Use ordinary window cleaner to clean mirrors which have the **ThermoClear** Mirror Defogger installed, just as you would any other mirror.

### INSTALLATION INSTRUCTIONS

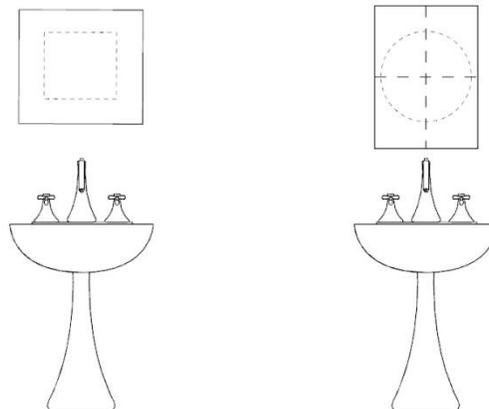
This appliance must be installed in accordance with the instructions in this manual and the NEC guidelines relating to bathroom electrical fixtures. The **ThermoClear** Mirror Defogger must be connected to a GFCI protected circuit and wired by a professional certified to do electrical wiring.

#### Determine Location of Mirror Defogger

##### Step 1

Large rectangular and oval shaped mirror defoggers are typically located so that the top edge is 6'6" above the floor. **See Figure 1.**

Smaller rectangular and circular shaped mirror defoggers should be centered over the vanity in the center of the mirror. **See Figure 2.**



**Figure 1**

**Figure 2**

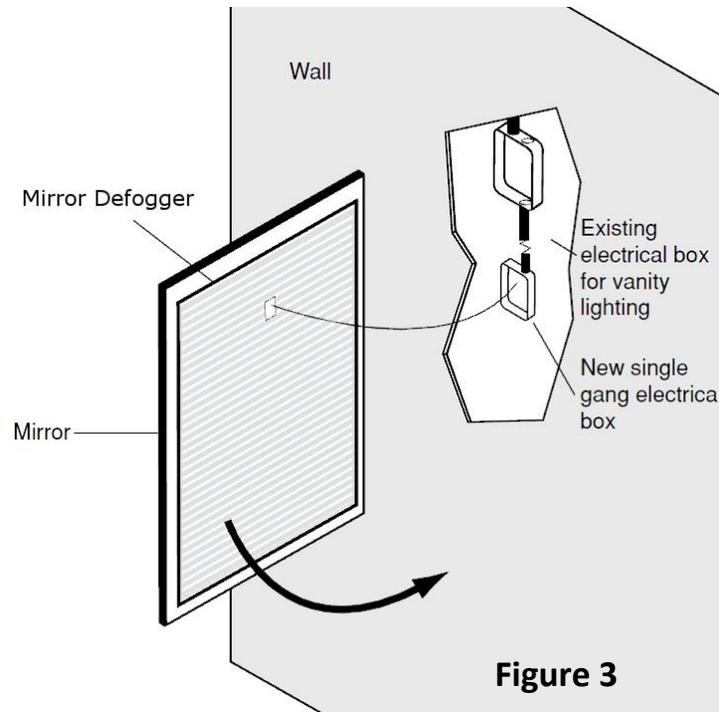
### Step 2

Mark the wall with the location where you will be installing the *ThermoClear™* mirror defogger. Mark the location where the lead wires leave the mirror defogger.

### Prepare Electrical Rough-In and Wiring

#### Step 3

Install a single gang electric junction box directly behind the mirror defogger's lead wires. The square lead wire connection pad on the back of the mirror defogger must be in line with the electric junction box. See **Figure 3**.



#### Step 4

Run Romex or similar cable approved by local code from a nearby junction box to the new box. Typically the most convenient junction box is the one that supplies power to the lighting above the mirror. The mirror defogger must be switched on. Connecting the mirror defogger to power at the lighting junction will automatically turn on the mirror defogger whenever the bathroom light is turned on and complies with the switch requirement.

### Attach *ThermoClear* Mirror Defogger to the Back of the Mirror

#### Step 5

Do not remove paper backing yet. Fit the mirror defogger on the mirror and line up the lead wires with the electrical box. Draw an outline of the mirror defogger on the mirror.

#### Step 6

Peel back 2" to 4" of backing from the mirror defogger, fold the paper and line up the mirror defogger with outline drawn in Step 5. Adhere mirror defogger to the top of the mirror and slowly remove the rest of the backing, sticking the mirror defogger to the back of the mirror while smoothing out any air bubbles that may occur. See **Figure 4**.

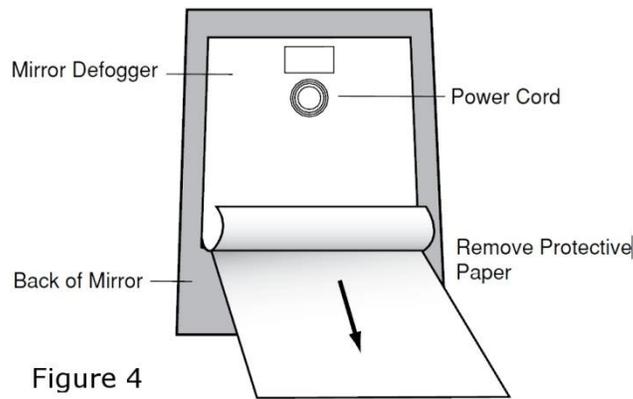


Figure 4

## Electrical Wiring

### Step 7

With the assistance of another person, position the mirror so the leads can be connected to the Romex cable referred to in Step 4. See Figure 5.

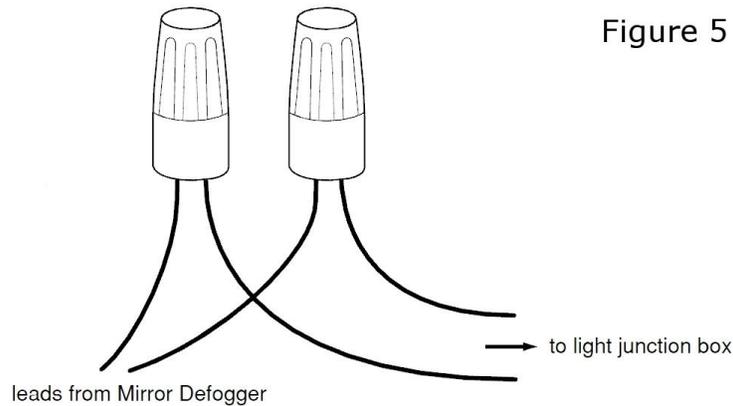


Figure 5

### Step 8

Push the excess lead wire into the junction box.

### Step 9

Wire the Romex cable to the junction box that houses the electrical wiring for the existing lighting.

## Install Mirror

### Step 10

Affix the mirror onto wall with silicon or clips. Apply silicon or appropriate adhesive in accordance with mirror manufacturers' instructions to the back of the mirror where it is not covered by the mirror defogger. If using clips, apply silicon to the bottom of the clips between mirror and clips.

## OPERATION

Wiring **ThermoClear** mirror defogger to the light above the vanity will automatically turn on **ThermoClear** whenever you turn on your vanity light. The mirror defogger will begin to defog within 5 minutes.