

## **Ducoterra SolaRay Infrared Heating Panel - Installation best practices**

- 1. Use [lever nuts](#) instead of wire nuts to make connections.
- 2. If installing by yourself it is helpful to have a product such as a 3rd Hand Utility Pole, or a drywall lift, which can help hold the panel in place while you affix it to the ceiling.
- 3. If using a hole saw to cut the hole in the ceiling for the electrical box, use a hole saw no greater than 5” in diameter. Or if using a drywall knife, etc. cut a rectangular “hole” no greater than ½” beyond any edge of the electrical box.
- 4. Be sure to install the plastic washers on the toggle bolt which will prevent the toggle bolt touching the front or back face/surface and this also allows for a small gap between the back of the panel and ceiling to eliminate any noise caused by thermal expansion.
- 5. When tightening toggle bolts (or wood screws if into wood joists) we recommend hand tightening these so that they are snug, but do not torque them with any force that can happen if you use a cordless drill.. If the connections are too tight, it can cause the panels to make a popping noise due to thermal expansion and contraction. This will not harm the panel but is not desirable to hear.
- 6. Ensure that your circuit is properly grounded to the electrical panel and all the way to the ground rod.
- 7. To ensure that no air movement and particulates aka dirt in the attic gets between the heater and the ceiling, and to prevent and “streaking” from air movement and dirt, add a bead of caulking around the hole in the ceiling where the hole was cut for the electrical box to recess up into the attic.
- 8. If desired, for aesthetic reasons, you may caulk around the perimeter of the panel with paintable caulk, and you can paint the SolaRay and caulk with any water or acrylic based paint for a seamless look.
- 9. For further instructions, technical information (cut sheets), installation information and videos, etc. please view the tabs on the product page:  
<https://heatinggreen.com/product/solaray-heater/>

Thank you for your purchase and we hope that our heating products will be beneficial to you for years to come.

