



INSTRUCTIONS

RADIANT HEAT PANEL

Helix panels are designed to be mounted on the underside of the cage ceiling but may be mounted on any flat surface or suspended from the ceiling using special hardware available from Helix Controls. As with all radiant heaters the temperature drops quite rapidly with distance from the heater and the maximum temperature reached will depend on the size of the environment and how quickly heated air can escape. When used inside a cage, with proper venting, an 85-95 degree basking area can be achieved at distances approx. 12" and 16". In 24" or tall cages, a hide box or object or perch located below the panel can decrease the distance and raise the basking temperatures higher. Remember that Infrared heaters will heat objects with mass and not so much the air, the panel's radiant surface temperature will heat the air. The controller's probe will sense the air temperature changes. Helix heat panels have one radiant surface and because they are 100% inside the cage, they do not allow a portion of the heat produced to escape into the room as with hooded heaters mounted outside the cage. Overall higher efficiency, longer life, and electricity savings are optimized. Helix Radiant panels produce an even, safe, heat across a large surface area and **do not** produce a focused hot spot that can exceed the safe-comfort zone for your animals and provide a scorching hot element surface that can burn you and your animals. Helix Heat Panels are factory sealed, non-porous, water and moisture resistant, and they were designed to outlast other heat sources by many times.

INSTALLATION: For uses with animals other than large snakes and large lizards, drill two holes 1/8 in. diameter on the centerline of the heater in the planned location. The center distance of the holes is ¼ inch less than the length of the heater (15.75 in. for a 16 in. unit). Mount one bracket loosely and insert the pin part of the tab in the end of the heater. Hold the heater in place and assemble the remaining bracket, tighten both mounting screws. For plastic cages, machine screws are provided. These are inserted in 3/16 in. holes with the head outside the enclosure. Drill a ¼ in. hole for the cord to pass through the cage wall or ceiling. Route power cord so that animals can't come in contact with it and attach the plug following the instructions provided on page 3.

****See addendum #1 for additional mounting information (large snakes or large lizards).**

OPERATION and RECOMMENDATION: The high quality Helix panel is designed to provide many years of trouble free operation. As with all un-regulated heat sources, the use of a high quality proportional temperature controller such as a Helix Basic or the DBS-1000 System is recommended to safely control the temperature/s, optimizing the health of your animal/s. Also, a Helix proportional system will extend the life of any resistive heat source. See the attached sheet for plug installation. There are no polarity concerns with Helix heat panel plug installation/wiring. **Note:** For outdoor use, install with a GFCI (ground fault circuit interrupt) for maximum safety.

CAUTION NOTE: Each panel is tested and allowed to "burn-in" at 100% power to help "outgas" the plastic/fiberglass materials. Depending on the freshness of the materials used at the time of your panel's production, more out-gassing may be required. Plug the panel in at 100% power for a few hours, or as required to burn away or outgas the solvents left in the fiberglass radiant surface. Then again, after installation / set up testing, ensure the "out-gassing" or plastic smell is at a safe level prior to adding your animal/s. It is normal for the heating surface to "golden up" with extended use at 100% power and this color change will not affect the panel's performance or shorten the panel's life.

CLEANING: Disconnect the electricity before washing, unseen damage could cause electrical shock hazard. The heater is designed for easy cleaning with soap and water or water based antibacterial or bleach solutions. As with all electrical devices, unplug before cleaning. Total immersion or high pressure power spraying at the power cord's strain relief area is not recommended. A water-proof cord and strain relief is an available option for outside high moisture installations.

WARRANTY: All Helix panels have a 7 year limited warranty against defects in materials and workmanship in normal and intended use, with the exclusion of the power cord. This warranty is limited to repair or replacement of the product and excludes all consequential and special damages. (Note: Internal element is UL listed and was designed to operate for 40-50 years in commercial use).

****Addendum #1. Reptile enclosure mounting instructions:**

The hardware packet for the Radiant Heat panels includes both 1/2" sheet metal screws and 5/8" machine screws with nuts. It is important that the mounting clips are seated into the panel and the panel then be *securely mounted*. Example: 1/2" screws with clips loosely into the panel sides, at an angle into 3/8" chipboard or thin plastic cage, **WILL NOT** provide secure mounting. Attaching the heat panels to the roof using machine *screws and nuts* and following the steps below **will provide** a more secure installation.

CAUTION: HEAT PANELS USED WITH SNAKES OR LARGE LIZARDS REQUIRE AN ULTRA-SECURE INSTALLATION

1. Drill (1) 5/32" hole in each corner of the panel, through the outer lip, where the fiberglass is bonded to the outer shell. Be sure to leave adequate material around each hole for strength.
2. Position the panel in place, mark for each of the (4) holes through the panel, remove the panel and drill holes through top of enclosure. NOTE: See steps (3 & 4) below, determine routing of cord, locate and drill hole for power cord as necessary. We recommend #8 stainless machine screws, washers and nuts, assembled using a thread locking compound. (Stainless hardware will not corrode easily and is stronger, and reusable.)
3. Optional: Apply a bead of suitable silicone adhesive around inside edge of mating surface. (This is to eliminate potential mite hiding places, and adds strength) and install panel using hardware as above. Remove any excess silicone.
4. Route power cord in such a way as to prevent animals from hanging or looping around it and causing the cord to pull out of the panel. This can cause major damage to the panel and in extreme cases, the animal! We recommend, exiting the power cord directly above the strain relief through a 1/4" hole or obtaining a length of channel used for hiding cords and securing it over the entire length of cord until it exits the enclosure.
5. Customers desiring a more finished look can obtain 1/8" plastic sheet material and cut it to size, to provide a vertical edge around the exposed edge. This skirting material can then fastened to the panel's lower edge using silicone and/or rivets or D-stick tape. This is safe, because heat only radiates from the panels face and the skirt will keep your pet from contacting the hardware and strain relief areas of the panel, also making cleaning easier.