

## **Kendrick Newtonian Secondary Mirror Heater Guide**

There are many hundreds (perhaps thousands) of Newtonian style telescopes and we have no way of keeping track of them all. Even the most popular models undergo design changes. What we care about is ... how is the secondary mirror attached? So, we cannot tell you which heater model will fit a ACME123864 model telescope. But the good news is that since you have the telescope in-hand, you can find the best heater model for your telescope. You just need to take a few simple measurements. We manufacture 3 different types of heaters, each in several sizes, that will accommodate 90% of all telescopes.

## ALL Heaters require a Dew Controller and a Power Source capable of outputting 5 Amps @ 12V (nominal 12.9V-13.8V)

## 1) Elliptical

These made for mirrors that sit inside a hollow tube. These offer the best result that you can expect from a heater because the entire back surface of the mirror is covered with a heating element and allows for perfect distribution of heat using the least amount of heat. Theses types of mirror assemblies are often back-filled with a "cotton batting" which holds the heater in contact with the back-side of the mirror.



2) Split - For mirrors that are glued to a "stalk" These heaters are mounted on the exposed area on the backside of the mirror. There are 5 models of heaters that differ in the over-all size, as well as the size of the "hole" in the middle. Our website shows that outer and inner dimensions for each model.

When selecting a model, some may find that the

best model is slightly too large. Heaters can **NOT** be trimmed, but they are reasonably flexible and can be flexed slightly which might be just enough to get the perfect fit. *Just beware that they cannot be bent at sharp angles, otherwise you will break the internal heating element.* 











The installation instructions recommend common bathtub silicone caulking (pick your favorite color) be used as an adhesive because it can be pealed-off if needed.

3) Wrap-Around – For mirrors that do not have access to the back-side of the mirror.

These work great, but do require a higher heat setting. The wrap-around model heats the stalk, and then heat is transferred to the mirror.



The easiest method is to use the 2-piece white wires. These have narrow "quick connectors" that allow you to drill a small hole to allow the connectors to pass through shrouds.

We also give you adhesive-backed foil tape that are electrically conductive and take almost 0 of your light path. **NOTE**: To use this option, you will need to solder common wire leads to each end on the foil tape. You need 1 foil strip for each of +POS and - NEG.



HEATER INSTALLED ON SECONDARY STALK

**Custom Heaters?** No. We can't do that. These heaters require specialized stamps and molds and the cost would be measured in \$\$\$\$ tens of thousands.

If you are unable to find a model that fits, the next best solution is to buy a conventional Kendrick Premier Brand heater strap (other brands will NOT work), remove the heating element from the fabric exterior, and wrap it around the mirror as best you can.

**NEVER Immerse Heaters in Water.** You will ruin the heater. We are aware that many people like to soak the mirror in water for cleaning, but you will need to remove the heater, or find another cleaning method.