

Miller IDEAL Student Lamp Wick Installation

Near Right: A Miller IDEAL Student Lamp.

Far right: Indicia on Miller IDEAL Student lamp

The Miller IDEAL Student Lamp is a different design than the Miller 0 Student Lamp (which uses a modified #0 Miller lamp burner and wick sleeve).

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At right, the Miller Ideal wick sleeve and wick raising gearing.

The wick supplied is deliberately too long as it needs to be fitted to the maximum space available and burned "dry" to level the top after installation.

As the Miller Ideal Student Lamp was essentially a hand-assembled lamp, differences between lamps are to be expected.

To determine the wick length for your lamp, insert a bamboo skewer between the wick sleeve and draft tube all the way to the bottom of the wick tube. Mark the skewer at the top of the draft tube. Withdraw the skewer and measure the depth marked - that is the length of wick you will need. Cut the supplied wick to that length.

Lower the wick sleeve as far as it will go and measure the distance between the top of the wick sleeve and the top of the draft tube. THAT is how high you should install the wick above the top of the wick sleeve.

The wick will now fill the maximum length of space available as there is no room at the bottom of the font for traditional wick "tails."

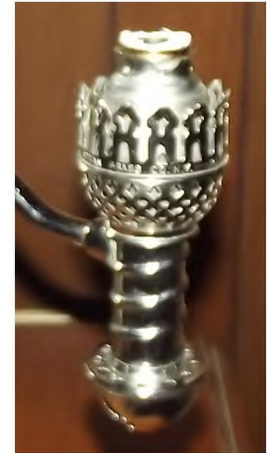




At left is the wick sleeve removed from the burner. Install the wick inside the sleeve with the amount determined above exposed above the wick sleeve. It may be necessary to tie the wick to the wick sleeve using a buttonhole stitch on opposite sides of the wick near the bottom, using holes in the wick sleeve as guides.

Install the wick sleeve into the burner.

At right shows a burner fully inserted into the outer tube. Note that the wick is not level on top - it cannot be used that way or the resulting flame spikes would severely limit the height of the flame to not produce soot in the chimney and on the ceiling while not producing enough light to be productive. The wick is raised 1/8" before burning "dry" so it will retract far enough for the flame to be extinguished when desired.



(Manhattan shown as illustration only.)

Burning the wick "dry"



Before any fuel is added to the lamp, the wick must be burned level by placing fuel on the exposed wick, the flame spreader replaced, the wick lighted and the chimney put on. After the fuel burns off the cotton wick itself burns down even with the wick tubes. See the photo at left to see how smooth and flat the top of the wick has become after burning it level. This procedure must usually be done twice to get the wick burned perfectly level.

The font is filled by pressing down on the tab to open the valve. Carry the font with fuel to the lamp with the valve UP, and carefully turn the font over and lower into the font holder gently.



Manhattan Font shown

Fill the font (above, right) with only an inch or so of pure, water clear kerosene. The fuel will flow through the tube at the bottom of the font holder to the wick tube. Let the lamp sit like this on newspaper for 15 minutes to check for any leaking fuel. These lamps are over a hundred years old and it is possible for a small stress crack to develop which could leak.

After you have determined there are no leaks, the wick can be lighted and the chimney placed on the burner. The height of the flame is adjusted by turning the wick knob, which moves the gearing engaged with the wick sleeve.

Start with a low flame to slowly heat up the chimney, the burner and the fuel. As the fuel heats it becomes thinner, has greater capillary action, and the flame will grow higher. Wait at least 15 minutes until the flame has stabilized before raising the wick higher, and let it stabilize for at least another 15 minutes before adding the shade.