

CS331 LED LIME-LIGHT MAGIC LANTERN INSTALLATION

Using a conventional pole mount

There is a central 8mm hole running through the body of the CS331 unit to allow fitting to an existing pole support. The foot of the pole mount may need reversing from its original orientation to allow the CS331 to be moved to the correct distance for the condenser lens focal length.

The M6 thumbscrew supplied is fitted between the fins to lock on the pole after setting the correct height for optical axis alignment. The minimum height with the unit upright is 3" (76mm) but can be reduced by turning the other way up.

Optical Alignment

1. Set the approximate height, distance and squareness by eye
2. With the power off, plug the LED unit into the controller
3. Then power up and focus the front lens using a suitable slide
4. Remove the slide so you can observe the evenness of the light disc
5. Gently move the LED limelight up and down for a symmetrical disc illumination
6. Move the foot forwards and backwards for best brightness and flatness of the disc
7. Lock the thumbscrew and then, perhaps with chalk, mark on the rail the foot position. Then you can reposition to the mark in case the foot should move during transport etc.

Using optional CS335 mounting brackets

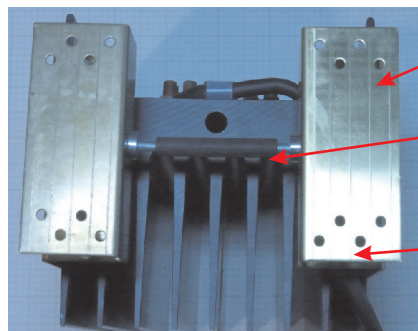
This option replaces the old wobbly pole support. This kit allows the rigid support of the CS331 unit on the lantern's lamp tray rails or can be screwed into its floor base if there are no rails.

The brackets are attached with four M4 x6mm (or 8mm) through the vertical slots allow exact alignment to the optical axis. When used with the rails, the feet will need adjusting to the width between the inside lips. First assemble the brackets as shown to see how much might need to be taken off the bottom edges of the brackets. The design accommodates up to 5" down to 3" (126mm - 76mm).

With a small piece of thin card, measure and then cut the card to be a sliding fit inside the rails. Then offer up the card template to the base of the brackets. These are scored at 1/4" intervals to aid cut estimation. With the card aligned symmetrically, mark off the cut lines needed. The width can be up to 1/4" (6mm) smaller than the card as the spacer bar can expand the feet into the rails. However double check before you cut!

Remove the brackets and (well away from your lantern equipment!) cut off the excess parts of the feet using a junior hacksaw or Dremel tool etc. Reassemble with the two M4 x 25 locking screws and the spacer bar between the feet. If the lantern has an optical axis less than 3.5" (88mm) then the LED unit can be inverted if necessary to lower the effective lamp height.

Insert the LED limelight assembly into the rails with the locking screws loose. If the lantern has restricted rear or top access, this can be done through the side door with one bracket removed and screwing in situ.



SCORE LINES

SPACER BAR

SCREW HOLES FOR ALTERNATIVE MOUNTING

Optical Alignment

1. Set the approximate height and distance by eye.
2. With the power off, plug the LED unit into the controller.
3. Then power up and focus the front lens using a suitable slide
4. Remove the slide so you can observe the evenness of the light disc.
5. Gently move the LED limelight up and down for a symmetrical disc illumination
6. Then move the bracket foot forwards and backwards best the brightness and flatness of the disc.
7. Gently tighten one of the bracket base locking screws so that the spacer bar pinches up the feet.

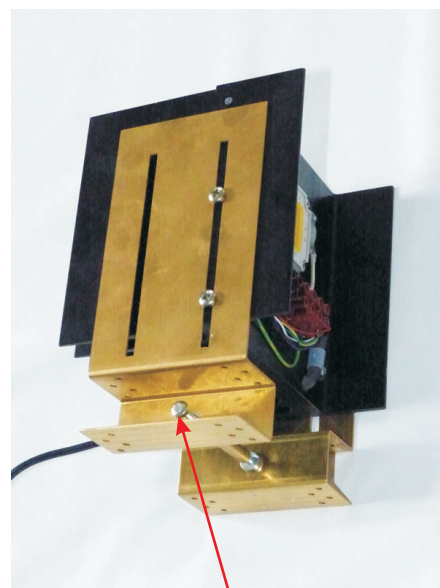
Unlike the wobbly pole mount, the lantern should now be correctly permanently set.

For a demo see <https://www.youtube.com/watch?v=8YoJqQdPri0>

Typical Installation using the lantern's pole mount



VIEW SHOWING OPTIONAL CS335 BRASS SUPPORT KIT



FEET LOCKING M4 SCREWS