



Simple Reasons and Easy Fixes for Failed Lighting

One of the most common reasons a driver is pulled over and cited is for a faulty lamp; whether it's completely out, flickering, has a broken lens or housing, or is mounted improperly.



There are many reasons for a lamp to fail. Sometimes the cause for lighting failure can be involved or complex when the problem lies within the electrical system. However, sometimes the cause for lighting failure can be fairly simple, and easy to prevent. The following are just a few situations to watch out for, and suggestions to avoid them.

Installation/Replacement/Maintenance

Not Replacing the Lighting Connections – Corrosion on old lighting pigtail connections can lead to corrosion on the pins of the new lamp. When possible, pigtail connections should be replaced when the lamps are replaced to avoid corrosion build up, which can cause lighting failure.

Positioning Lamps in the Correct Direction – The bulbs or LEDs within a lamp are positioned in a particular direction, and/or use reflective surfaces within the design of the lamp, to emit light in a specified direction in relation to its function. When a lamp is positioned incorrectly, it is not performing its job properly, offering poor or inadequate lighting. In most situations proper positioning of a lamp can be determined if text on the lens is right side up. It's also important to note that there are those lamps that can be mounted in any direction and perform their job function properly.

Over-Torqued Mounting Hardware – Too much stress placed on the polycarbonate material of a lamp, over time, can lead to cracks in the lens. Mounting hardware should be torqued to no

more than the manufacturer's specifications, typically between 8 – 20 In. Lbs., and mounting holes should be periodically checked for damage.

Operating an Incandescent Lamp Above It's Designed Voltage – Operating an incandescent lamp on an overvoltage has the potential to create a fire as well as significantly reduce the life of the lamp. By operating an incandescent lamp at just 5% over it's operating voltage, the lamp life has the possibility to be decreased by half. LED's are a little more forgiving since they usually operated within a wider voltage range.

Lenses Coming Into Contact with Harsh Chemicals – Harsh chemicals that come into contact with the lenses on a lamp can weaken the integrity of the lenses over time, leading to damage. Avoid using harsh chemicals when washing a trailer since it's inevitable that the exterior lighting will most likely come into contact with the cleansing solution.

On the Road

Parking in Padded Docks with Lamps On – Heat is created from the light, reflecting off the padding and back onto the lamps, which can cause lenses to melt and even shorten the life of the light bulb or LED. Turning off the trailer lamps when parked in a dock with a padded frame will help avoid this.

Shock and Vibration From Multiple Sources – Road vibration is a known culprit for premature lighting failure as some bulbs/filaments may break, or become disconnected. However, damage from shock or vibration can also occur during loading and unloading, (including containers onto trailer chassis), when backing in too hard to a loading dock or brunt force contact with stationary objects. So it's always good to check the exterior lighting after aggressive/heavy loading and unloading, or after a hard jolt with a loading dock.

TIPS

Have technical questions? Get the latest tips from a skilled Phillips engineer! Call: 888-959-0995 OR e-mail: techtips@phillipsind.com

- Exterior trailer lamps will last longer when they are maintained to avoid corrosion build-up at the connections, mounted and positioned correctly, and operating within the intended voltage range for their design.
- Lighting failure from shock and vibration can come from multiple sources other than just the road, such as the process of loading and unloading. So it's always good to check the exterior lighting after aggressive/heavy loading and unloading, or after a hard jolt with a loading dock.

PRODUCT INFORMATION
related to this article is available [here](#).

VISIT US ONLINE
at www.phillipsqwiktechtips.com
To be added to our mailing list and for all past issues.

*Phillips Industries, to the best of our knowledge, has compiled the information contained herein from what it believes are authoritative sources. This information is not to be taken as representation for which Phillips Industries assumes legal responsibility.