

For fire departments, choosing a new apparatus is likely the most important and expensive decision they will have to make. Due to the costs of modern apparatus, choosing the right equipment is critical as the firefighters who use the apparatus on a daily basis will be depending on that equipment to function when they need it whether it is one day old or 20 years old. Besides the pumps, nozzles, storage compartments and other equipment on today's apparatus, choosing the right lighting is one of the most important decisions that needs to be considered when purchasing a new apparatus.

All of the lighting on an apparatus must follow the strict guidelines set forth by the NFPA 1901 standard. The NFPA 1901 standard specifies where, how many, and what colors of light on an apparatus can be used during both Calling for Right of Way (Responding) and Blocking Right of Way (At a Scene). To read all of the requirements for apparatus lighting click [here](#).

### **Choosing a Company**

Before discussing the lights themselves, it is important to first pick a lighting company that has a reputation for quality, affordability, and excellent customer service. Choosing the lighting company is almost as important as choosing the lights themselves because they will be the ones you will be dealing with if anything goes wrong with the lights. What sets some lighting companies apart from others, besides the actual lighting products, is the customer service and warranty policy. A company can make the best lights on the market but if their customer service is unresponsive or not in tune with the needs of its customers, the experience of working with that company will be less than favorable. On the warranty side, a company that offers a hassle-free warranty vs. a company that only offers a basic, standard warranty shows that it is fully committed to its products and the customers that purchase them.

Now that a lighting company has been selected, it's time to select the lights that will be used on the apparatus. Lighting for a new apparatus can be broken down into 4 subcategories; lightbar, perimeter lighting, worklights, and interior lighting.

### **Lightbar**

The lightbar atop an apparatus is the biggest, brightest, and single most expensive light on the truck. For this reason, choosing the right lightbar is the most critical decision when designing the lighting system for an apparatus. When choosing a lightbar, it is critically important that the configuration chosen meets the requirements for Upper Zone A of the NFPA 1901 standards. Fortunately, for those looking to purchase a lighting system, there are a variety of lightbar styles and prices to choose from such as single-color, multi-color, single-level, and dual-level. Lightbars that are single-level and single-color are generally the best option for departments looking for the most performance but at an economical price. Stepping up in price to multi-color gives departments more flexibility in the use of their lightbars. The main advantage of a [multi-color lightbar](#) is that you get two colors out of one lighthouse. This means that you can flash red and white on the way to an emergency scene and, once you are on scene, you can flip a switch and turn the bar all white, effectively giving you a high-powered scene light. This not only saves you money by eliminating the need to purchase separate front scene lights but also keeps the appearance of the apparatus neat and uncluttered.

## Perimeter Lighting

**Perimeter lighting** is used to light up the sides and back of a truck so that it conforms to NFPA regulations. According to the NFPA guide, a horizontal distance of 25 feet or less must be maintained in zones B and D. Perimeter lighting is used as additional warning lights around the apparatus to warn oncoming motorists. Perimeter Lights can come in many sizes ranging from 3x4" up to 7x9". Most perimeter lights can be synchronized between themselves. Perimeter lighting can be Red, Blue, Amber or White, with Red and White being the most common colors used. **Scene lights** are another kind of perimeter lights that are strictly white light. Scene lighting on an apparatus is used to light up the area around an apparatus so that firefighters can see what they are doing and avoid the potential hazards that come with working around hoses and other firefighting gear. With the move toward LED scene lights, departments are able to get the same, or greater, output as traditional halogen lights with less lighting modules, which allows for more space for worklights or extra compartments. The other advantage LED scene lights have is that they draw far less energy than halogen lights, reducing the strain on the battery and alternator and saving costs on maintenance. Unlike other perimeter lights, scene lights aren't used to meet the NFPA standard so it is up to the individual departments to decide how many and where their scene lights will go. Many companies also offer stop/turn/tail lights as part of their perimeter lighting packages. For the most part, these consist of 3 separate lights stacked in the same housing. Some companies also offer an **all-in-one stop/turn/tail/reverse** that dramatically reduces the size of the light and requires less holes to be drilled into the apparatus.

## Worklights

**Worklights** are similar to Scene lights in that they are used only once the apparatus has arrived on scene and are used to give firefighters a better view of their equipment and the surrounding area rather than as warning lights for the public. Worklights give off a more concentrated beam of light making them perfect as a floodlight for a hose bed, spotlight on a ladder, or as extra scene lighting in particularly dark areas. Some worklights are even portable allowing you to detach them from the truck and use them as large flashlights or to light doorways and other routes of entry/exit. Worklights generally come in both spot and flood models to fit any application.

Interior lighting for an apparatus is mainly made up of different sized compartment lights. These compartment lights are compact and thin and designed to be flush mounted so they take up as little space as possible. These lights are used to light the different compartments of a fire truck or as additional lighting in the cab area. **Compartment lights** can come with either a switch, or without a switch, meaning that they are wired in so that when a door is opened they turn on.

Whether you need a new lightbar or a whole apparatus outfitted, be sure to consider the quality of the product as well as the quality and reputation of the company that makes the products. A company that you haven't used or considered before might end up being the best option in terms of price, quality, and commitment to the customer.