

Operating Your ARRI Lamphheads Safely

The following instructions contain helpful advice on how to operate your ARRI lamphhead safely. Lamphheads, lamphhead systems and accessories may only be operated and used by qualified persons and only for professional lighting purposes. Relevant operating instructions must be followed for the equipment you are using. Please also refer to the Ordinance on Industrial Safety and Health as well as the relevant guidelines and regulations of your national Industrial Injuries Corporation (e.g. BGI 810-1, -3 and -4, BGV A1 for Germany; OSHA or ESTA for USA; etc.).

1. General Safety Requirements for Operating Lamphhead Systems

In order to ensure the safe operation of lamphheads we bring to your attention a number of safety requirements in addition to those stated in the operating instructions for your equipment.

a) Safety Requirements for Transport, Setup and Operation of Lamphheads

- We recommend wearing suitable protective clothing when working with lamphheads in order to prevent injuries and burns.
- In the interest of your own health and safety, we advise you to consider the weight of your lamphhead and accessories when carrying or lifting them and to observe the relevant precautions recommended by your Occupational Safety and Health Administration (for Germany BGI 810-1).
- Please ensure that all connection cables are routed in such a way as to prevent tripping hazards and damage by vehicles. You can achieve this with the help of suitable signs, covers or cable crossovers.
- Luminaire and accessories must cool down before dismantling or transporting. Check type plate for minimal cool down period.

b) Safety Requirements Concerning Electrical Danger

- Please check the lamphhead system and its electrical protection device before each use.
- The faultless function of the power supply and protection system must be ensured before connecting the lamphhead (e.g. grounding, circuit breaker).
- It might be necessary to install additional protection measures; for example:
 - the application of residual current operated protective devices (RCDs)
 - the application of safety extra low voltage, protective separation or protective insulation
 - equipotential bonding.

c) Safety Requirements Concerning Fire, Burns and Radiation (UV, VIS, IR)

Always observe the minimum distances stated on the type plate or in the operating instructions to allow light and heat radiation to disperse safely. This will prevent danger to persons and objects.

Fire Hazard and Danger of Burns

- Lamphheads must be placed at sufficient distance from flammable materials or objects. The minimum distance to lit objects written on the lamphhead describes a max. temperature of 90°C in spot-focus on the lit object.
- Do not cover any ventilation slots on the lamphhead.
- Lamphhead housings can reach high temperatures. Make sure the lamphhead cannot be inadvertently manipulated and general public cannot burn themselves by touching the lamphhead. This is crucial within a height of 2.5 m (8 ft.) above floor level.
- Always observe the minimum distance to flammable objects when you expose them to a strongly focused beam of light.
- Do not move the lamphhead past the tilt angle stated on the type plate and in the operating instructions, as this might cause the lamphhead to overheat.
- Do not operate the lamphhead with closed barndoors or an excessive number of scrims, as this might also cause overheating.

Danger Caused by Radiation (UV, VIS, IR)

- The UV radiation of daylight lamphheads can cause injuries to persons and animals (e.g. sunburn). The minimum distance stated on the type plate and in the operating instructions specifies the distance at which exposure to the beam of light for up to eight hours per day will not cause harm.
- The glare of the lamphhead may result in impaired vision which in turn may cause accidents (e.g. on landings or in street traffic).
- Please take appropriate precaution when lighting glass, windows and decorative surfaces. These materials can burst when they become hot and their splinters might cause injuries.

2. Directions for the Use of Lamphheads

Always make sure that your lamphheads are adequately mounted, located, secured and monitored when operated.

a) Operating Lamphheads in Studios or on Location and Exposing them to Special Environmental Effects (wet conditions, dust, foreign particles)

The protection degree (IP-Code) of the lamphhead has to comply with the environmental effects (dust, wet conditions, rain). The minimum required IP numbers for lamphheads are:

- Protection degree **IP x0** for interiors such as theatres or studios as well as sunny outdoor situation
- Protection degree **IP x1** (drip proof) for humid and wet areas in rooms as well as protected outdoor areas
- Protection degree **IP x3** (rain proof) for unprotected outdoor areas

Lamphheads and all components that do not feature the necessary protection degree have to be protected by additional suitable means, such as weatherproof position, protective roofs or covers. In these cases it is important to ensure that airflow around the lamphhead is not restricted.

b) Protective Regulations for Operating Lampheads In or Near Water:

- No other electrical equipment may be operated from the same junction.
- Make sure that the position of all electrical equipment and cables prevents electric shock from touch by persons and animals at all times.
- All electrical equipment must be secured against falling into water.
- Cables must be placed at sufficient distance from water and must be securely fastened so that they cannot drop or slide into water.
- You may place special cables through water if they are officially approved for this purpose.
- You can increase the safety of the environment by applying measures for preventing electrical danger as described in section 1. b) of this leaflet.

c) Using Lampheads on Stands:

- Make sure that the stand is rated for the weight of the lamphead, including accessories and cables.
- Avoid lateral loads on the spigot when you set up and operate the lamphead, as they might cause the spigot to suffer damage or to break.
- Stands that carry lampheads must be set up in a stable position. You should take additional measures to secure stands if, for example:
 - your setup location does not allow for stable positioning
 - height restrictions interfere with stable positioning
 - high winds are expected
 - people might bump or push against the stand

Examples of suitable measures for securing stands are:

- fixating the stand with stage screws, e.g. stage or theatrical applications
- weighing down the stand legs or feet, e.g. with sand bags
- tying the stand to stable objects
- fencing off the stand area
- positioning safety guards
- sufficient counterweight, when using boom stands

d) Operating Lampheads in Hanging Positions:

- Make sure that the hanging equipment is rated and dimensioned for the weight of the lamphead, including accessories and cables.
- Avoid lateral loads on the spigot while you set up and operate the lamphead, as they might cause the spigot to suffer damage or to break.
- Lampheads, including their accessories, must be protected against falling with the help of two independent safety attachment points.
- If you are using additional accessories, make sure they are safely attached (e.g. self-tightening nuts, safety latches, safety cables) or apply other suitable technical measures to prevent them from falling. Additional accessories for stationary lampheads do not necessarily require added protection, as long as the lamphead accessory holder is sufficiently rated for the extra load and the accessories are protected against self-loosening.
- For lampheads that are permanently attached to buildings the fastening must be specified to carry at least 5 times the weight of the lamphead. Lampheads fastened in a standing position must be secured in such a way as to prevent a hazard from tilting if the fastening fails.
- In order to sufficiently secure lampheads the material selection and sizing of safety elements must fulfil the requirements of the relevant regulations for suspending loads over people (for Germany BGI 810-3).

e) Lampheads in Special Environments:

- The use in explosive environment is not allowed.
- The use in corrosive atmosphere like salt water can require additional precaution.
- Please take appropriate precaution when using lampheads e. g. in an museum, historic building, church etc.

3. Maintenance and Care

Please do not forget that the safe operation of lampheads also includes their maintenance and care.

A visual inspection should be conducted before every use, and an inspection of electrical safety should be conducted at least once every 12 months. The results of these repeated inspections should be documented and filed.

You will find additional information for the setup and operation of your lamphead, as well as information on the special features of the individual lamphead models, in the relevant operating instructions.

For any technical questions please visit our homepage www.ARRI.com or contact our technical support.

The contents of this leaflet are subject to change without notice!