ARRIMAX 18/12

SERVICE MANUAL

Date: April 23, 2019

Supported Models
L1.37950.B
Version History

<table>
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<tr>
<th>Version</th>
<th>Author</th>
<th>Change Note</th>
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Important Information

This instruction supports only the models listed on page 1. If your model is not listed, please visit www.arri.com/service-lighting for more information. Also, these instructions are for qualified ARRI service personnel only. If you are not familiar with the handling of components that can be destroyed by high voltage or electrostatic discharge, please do not use these instructions and contact the ARRI Lighting Service Team.

Safety Instructions

The following instructions contain helpful advice on how to operate your ARRI lamp head safely. Lamp heads, lamp head 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.). Please refer also to our leaflet “Operating your ARRI Lamp heads safely” L5.70431.E

General Safety Requirements for Operating Lamphead Systems

Relevant Hazard Symbols and Warnings

The following symbols relate to all repairs in this manual. Use care and caution when repairing ARRI Products.

Warning of crushing / hand injury

Warning of a pointed object

Warning of electrical voltage

a) Safety Requirements for Transport, Setup and Operation of lamp heads

» We recommend wearing suitable protective clothing when working with lamp heads 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 lamp head 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 electrical 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.
b) Safety Requirements Concerning Electrical Danger

» Please check the lamp head 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 lamp head (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

Required Tools

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<tr>
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<th>Tool Description</th>
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<tr>
<td>1</td>
<td>Torx Screwdriver TX 20</td>
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<tr>
<td>2</td>
<td>Screwdriver Philips PH2</td>
</tr>
<tr>
<td>3</td>
<td>Ratchet: 13mm and 10mm</td>
</tr>
<tr>
<td>4</td>
<td>Allen Key size 1.5 mm</td>
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<tr>
<td>5</td>
<td>L4.85204.E Adjustment Pins G38 base (Set)</td>
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Disassembling Order

The graphic shows the order in which the components must be removed to ensure a proper repair. All components which are not preceded by a further assembly group can be exchanged directly.

Warning: Before starting the repair please take note of the safety instructions! Make sure that the lamp head is fully disconnected from the mains and cooled down for a minimum of 30 minutes before opening the cover or beginning the repair.
Set the Focus to Spot. The reflector is now in position to open the lens door.

Loosen 1 screw (1.5 mm Allen key) directly below the SSA. Do not remove.

Now you can move the SSA forward or backwards to find the right adjustment.

To adjust:

- Allow a small amount of play (C) when the silver pin (A) contacts the activator (B).
- When closing the door listen for a ‘click’ sound.
- It should ‘click’ twice before the door latch closes completely.

If this is not adjusted properly than the safety loop can be opened, and the lamp will not strike.

Note: You can also measure the safety loop refer to the wiring diagram.
Important: If the door latch is not adjusted properly this affects the SSA function.
Lens Door

Hold the lens door and then loosen and remove the screw on the top (13mm ratchet.)

Lift the bottom out and tilt the lens door to the front and slide out.

To exchange/clean the glass or wire mesh remove 12 screw (Philips PH2.)
6 screws around the rim and 3 pairs (6) on the attachments.

To clean the glass, use a soft cloth and standard glass cleaner.
Reflector: Replacement and Maintenance

Remove 6 screws (PH2 Phillips.)

Reach inside the reflector and remove as pictured.

Inspection/Maintenance points.
- Check if the reflector is dull or matt, specifically if it is matt towards the center.
- Check the reflector center rim for signs of melting. Replace dull, matt or melted reflectors.
- Clean the reflector with a soft cloth and glass cleaner often.

Tip: If the reflector has a silver ring on the inside rim (backside) it is the newest version of reflector and the material is thicker and has a longer lifespan.
Back Housing

Remove 10 screws (10 mm ratchet) 6 (black) screws three on each side and 4 shorter silver screws which are located on the top.

Turn the lamphead around to access the screws in the back. Remove the 4 black screws (Philips PH2) on the bottom half.

Holding the stirrup handles, lift the housing up (min of 5 cm) and slide the entire back housing off. Otherwise it is possible to damage the insulation of the HT Cables.
Lamp Carriage Removal

Remove 4 screws (Torx 20) as shown.

Move the focus to flood and then you can access two additional screws (Torx 20.)
Remove 2 screws (13 mm rachet) as shown.

Tip: Screw them back to avoid losing them.
Remove lamp carriage assembly.
Lamp Carriage Adjustment

Position the lamp carriage assembly on the frame as shown.

Install the 4 screws (Torx 20) without completely tightening them. Reinstall the HT cables (13 mm wrench.) Install 2 screws (Torx 20) on the side without completely tightening them. The focus must be set to flood.

Use the gauge Min or Max. The gauge set is part number L4.85204.E Insert the gauge in the lamp socket as shown and lock the lampholder.

Focus to flood. The screws on both sides on the lamp carriage are now accessible.
Attach the black plate on the front and slide it in to the reflector carriage as shown.

Tighten 6 screws (Torx 20.)
Open the lamp lock and remove the gauge and the black adjustment plate.

When sliding the back housing back on, the two fins of the baffles must be inside the flood/spot baffle as shown.
Lamp Cables

After removing the lamp carriage remove the lamp cables by unscrewing the two PTFE (white bushing as seen in picture.)

The longer cable is installed in the front and the short cable facing the back of the lamphead.
Fan Cooling System & Maintenance

To access the cooling system for the reflector/lampholder (2 front fans) remove the lens door and reflector. Place the lampead face down with the skid facing you.

See the two service doors to access the fans.

Remove 4 screws (Phillips PH2) from the doors. Carefully pull away.

Important: Maintain the fans by cleaning them regularly. Keep the fans free of debris/bugs. Failure can do so can cause damage to the reflector.

Important: Watch that the flat cable connectors are properly positioned and connected. The fan must be installed in the right direction. The air stream must move towards the inside of the lamphead.
Remove Bottom Plate and Skid

Remove 4 screws (Ratchet 13 mm) to remove the skid.

Remove 6 screws (Philips PH2.)
4 on the side and 2 in the middle.

The on/off switch, hour counter and fan can be accessed from this point.

Careful: The on/off switch and hour counter fan is attached to the cable.

Tip: This also gives you access to the spindle for maintenance (spray spindle with graphite spray for smooth movement.)
Maintenance and Care

Please do not forget that the safe operation of lamp heads 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 lamp head, as well as information on the special features of the individual lamp head models, in the relevant operating instructions. Our recommendations for maintenance of this lamp head can be found on the following pages.

Visual Inspection

We recommend a regular visual inspection. This helps to detect potential damages in an early state. This is the only way to prevent and avoid consequential damage to other components. If your lamp head shows any visual damage, please contact your local ARRI service partner.

Cleaning

The lamp head should be cleaned regularly. This is not just for your own safety; it also increases the lifespan of the device significantly. The following components should be cleaned regularly:

1. Cleaning the UV protection glass:
   Use conventional glass cleaner and a soft cloth for cleaning the protection glass.

2. Cleaning the reflector
   Follow the steps for “Lens holder” + “Reflector”
   Use conventional glass cleaner and a soft cloth for cleaning the reflector.

3. Cleaning the inner housing
   Follow the steps “Lens holder” and “Housing” in this manual.
   Clean the inner housing carefully with a vacuum cleaner and get rid of dust and insects.

Testing of Mechanical Components

The following mechanical components should be checked regularly for functionality:

1. Safety switch
   When setting or checking the safety switch you must ensure that you hear the clicking noise 2 times before the lens door is closed completely. If you are not sure if your lamp head is set correctly please contact immediately your local ARRI service partner for more information on how to proceed.

2. Lamp socket
   Burn marks or discoloration may be an indication for contact problems. We strongly recommend a replacement to avoid damage on the lamp head. Please contact your local ARRI service partner for more information about how to adjust the lamp socket correctly.
Contact
In case you have questions or recommendations, please contact the Global Application & Services department within ARRI via email: service-lighting@arri.de

Further Information
The manufacturer disclaims liability for any damage to persons or properties which are caused by an inappropriate operation of the fixture. Those lie in the responsibility of the operator. Visit our homepage www.arri.com/service-lighting for downloads and software tools.