

M18

SERVICE MANUAL

Date: February 7, 2019



Supported Models
L1.37600.B

Version History

Version	Author	Change Note
02/2019	S. Papke	Original version

Table of Contents

Version History	2
Table of Contents.....	2
Important Information.....	3
Safety Instructions.....	3
General Safety Requirements for Operating Lamphead Systems.....	3
Required Tools.....	4
Disassembling Order	5
Lens Holder & Safety Glass.....	6
Reflector	8
Safety Switch Activator & Door Latch (SSA)	9
Housing.....	12
Base Group & Ignitor	14
Lamphead Connector Cables	16
Stirrup	17
Maintenance and Care.....	18
Visual Inspection	18
Cleaning	18
Testing of mechanical components.....	18
Contact.....	19
Further Information.....	19

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:

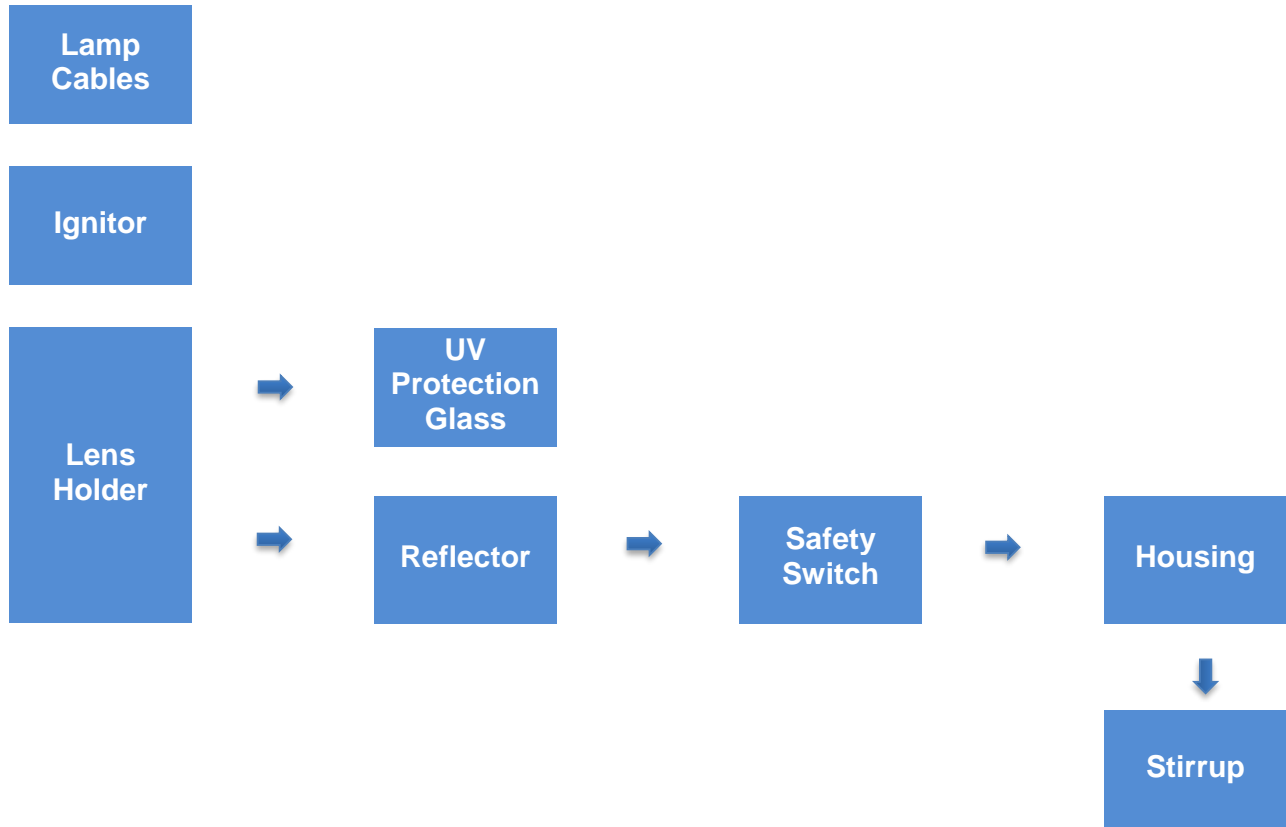
- » the application of residual current operated protective devices (RCDs)
- » the application of safety extra low voltage, protective separation or protective insulation
- » equipotential bonding

Required Tools

	
1	Torx Screwdriver TX 20
2	Torx Screwdriver TX 15
3	Torx Screwdriver TX 10
4	Allen Key size 1.5mm
5	Wrench size 5.5

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.

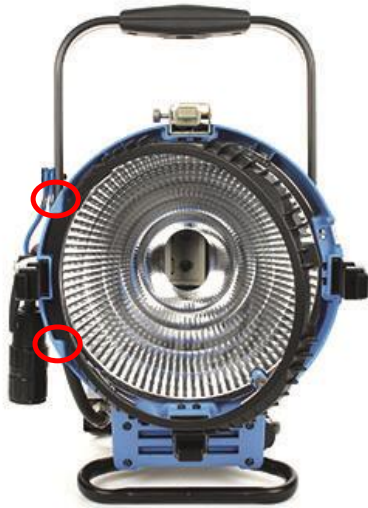


WARNING: Before starting the repair please take note of the safety instructions! Make sure that the lamp head is fully disconnected from the mains and cooled down for a minimum of 30 minutes before opening the cover or beginning the repair.



IMPORTANT NOTE: SEE SERVICE PARTS MANUAL FOR CORRECT VERSIONS OF PARTS AS PER SERIAL NUMBER

Lens Holder & Safety Glass



Loosen and remove two screws (Torx 10) to remove the lens door from the housing.



Note: Please carefully set down the lens door to avoid damaging the glass. This is an opportunity to properly clean the glass using a standard glass cleaner and a soft cloth.



Remove 4 screws (Torx 10) on the lens springs and 1 screw (Torx 10) on the safety switch activator pin.



Note: Pay close attention to the position of the lens door springs.
Note: Remember when ordering the glass there are two pieces of glass per lens door.



Make sure when putting the components back together, that the safety switch activator is installed at the right position. Reassemble in reverse order.

Please ensure that all parts go back in the correct position.

Tip: Old versions have no spacer plate between the lens door and the safety switch activator pin plate.

Please follow the instructions in the safety switch activator section.

Reflector



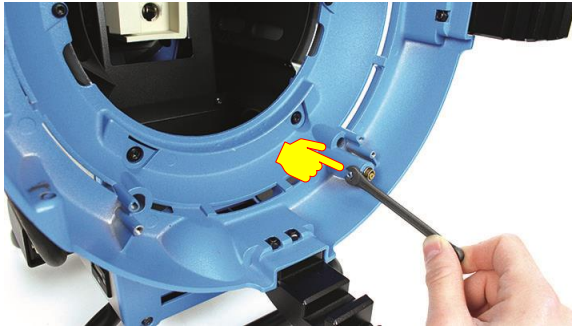
Remove 4 screws (Torx 20) around the reflector rim.



Reach into the reflector as pictured to avoid leaving finger prints on the inside of the reflector

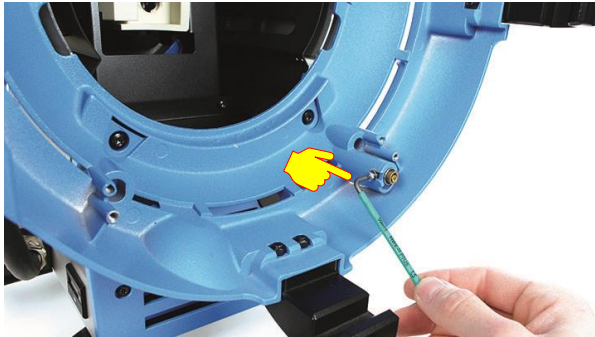
Note: This is an opportunity to clean the reflector with glass cleaner and a soft cloth. matte/dull reflectors must be replaced.

Safety Switch Activator & Door Latch (SSA)

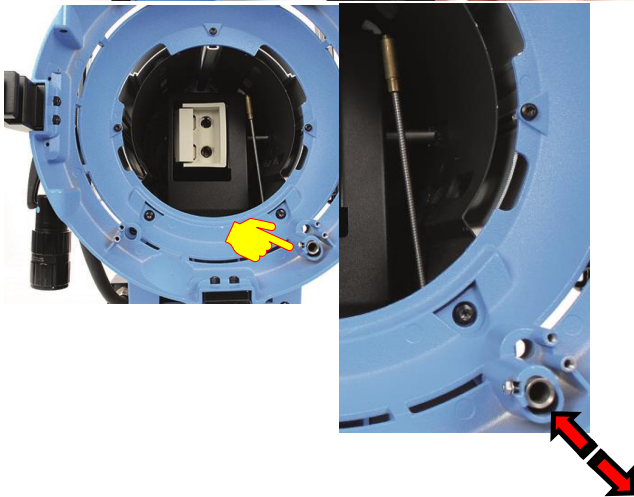


To Remove the Safety Switch Activator

Loosen the 5.5 mm nut as shown (do NOT remove.)



Loosen the worm screw with a 1.5 mm Allen Key, carefully! This can break easily. NOT remove, simply loosen until the safety switch activator is loose.



The SSA can now be moved forwards or backwards.



Important: Do not try to adjust the SSA with the door latch!



To test the Door Latch adjustment

Use the screw to adjust the door latch if needed.



When you close the lens door completely there should be a small gap (movement) between the black lens door and the blue front housing.

Tip: If the gap is too big then the safety loop can be opened and the lamphead will not strike.



To adjust the Safety Switch Activator

Loosen the nut and worm screw (as shown in the instructions for the removal of the SSA) to position the SSA correctly. Tighten up the worm screw carefully with 1.5 mm Allen Key. Very gently tighten the 5.5 mm nut.

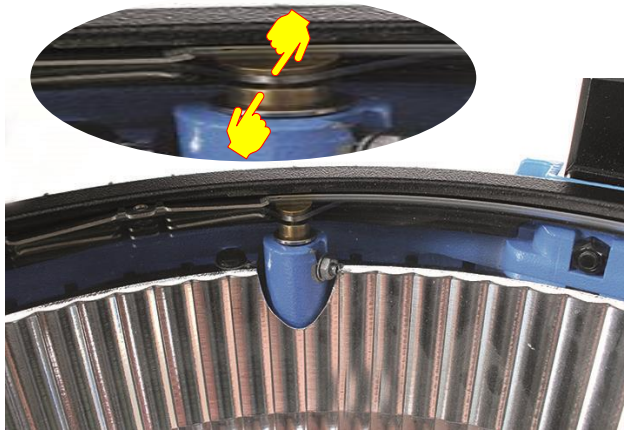
Careful! Using too much force when tightening the screw, may break it.

To test the adjustment of the SSA.

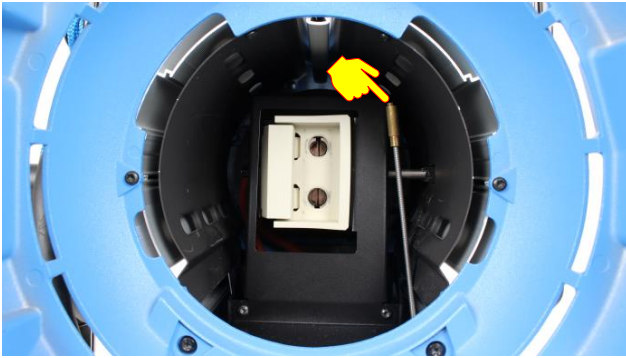
Make sure there is enough space between the SSA (brass) and SSA pin plate (silver) Please refer to the picture.

Listen for a 'click' sound. It should click twice before the door latch closes. If this is not adjusted properly than the safety loop can be opened and the lamphead will not strike.

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



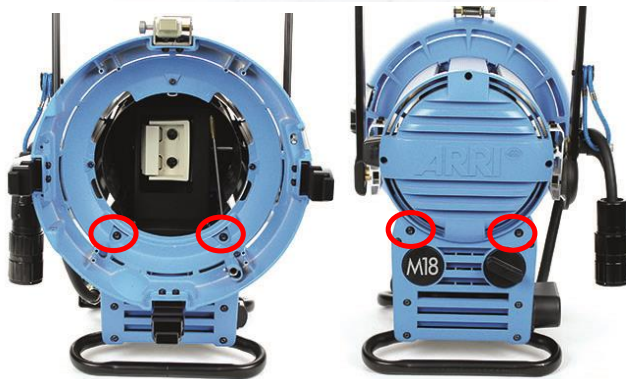
Housing



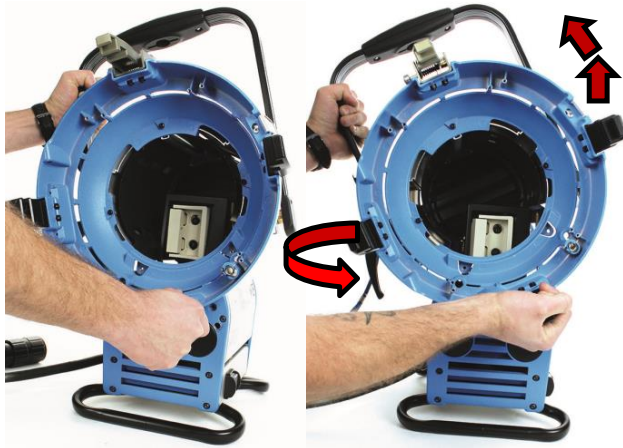
After removing the lens door, and the reflector, you must pull the SSA backwards into the housing and leave in the position as shown. Please follow the instructions in the safety switch activator section.



Remove the screw (Torx 20) of the lamp lock knob. Loosen the screw and remove completely.

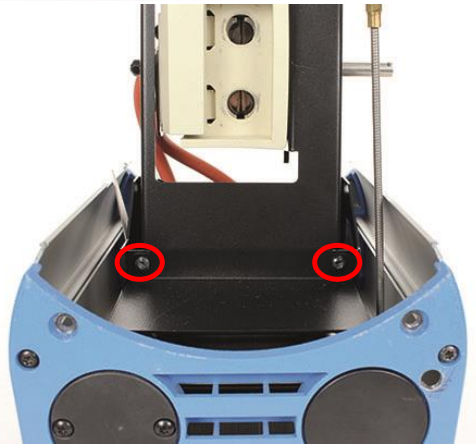


Remove 4 housing screws (Torx 20.) Two from the front and two in the back as pictured.

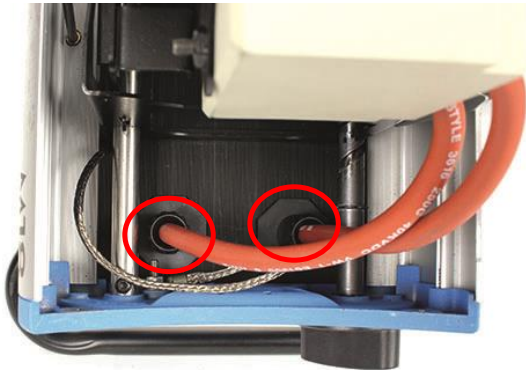


Place one hand on the skid and pull the housing upwards from the stirrup (it can hang on the lamp lock shaft, you may need to wiggle the housing). Lean the housing to the left to remove completely.

Tip: Turning the housing 90 degrees counterclockwise helps to avoid coming in contact with the inside baffle.

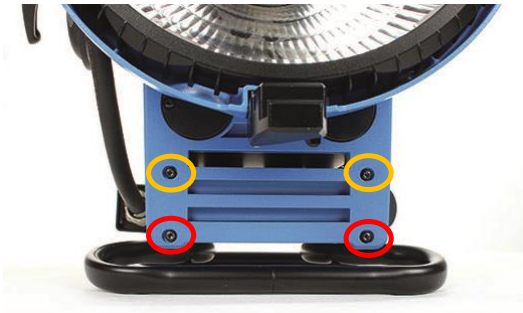


To remove the lamp holder, unscrew two screws (Torx 20) on the front side.



Unscrew the HT cables and disconnect. Slide the complete lamp holder assembly to the front and remove it completely.

Base Group & Ignitor



Remove the 2 screws on the bottom/front (marked in red.)
Loosen the 2 middle screws (marked in yellow.)
Do not remove.



Place the lamphead face down with the skid facing towards you.
Remove the 2 screws on the bottom/back (marked in red.)
Loosen the 2 middle screws (marked in yellow.)
Do not remove.

Tip: Loosening the screws helps to get a bigger gap in the blue housing to remove the ignitor assembly.



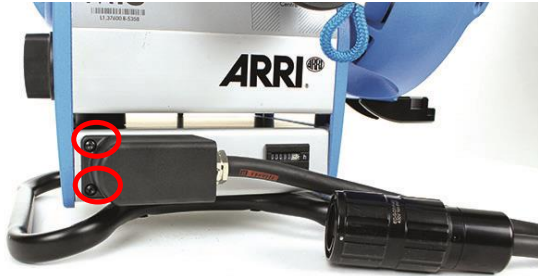
Pull out the electronic box towards you to remove.



Tip: To reassemble loosen all 4 screws of the skid. This allows a better fit for the base group and the housing.

Tip: After reassembling tighten screws!

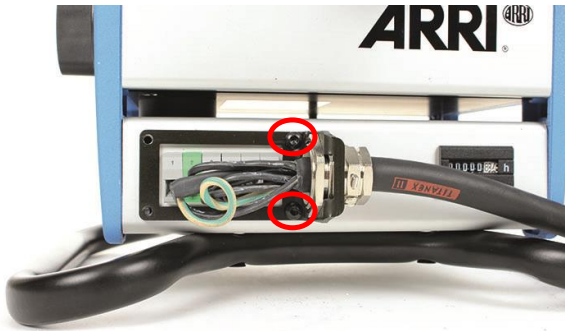
Lamphead Connector Cables



Remove 2 screws (Torx 20.)

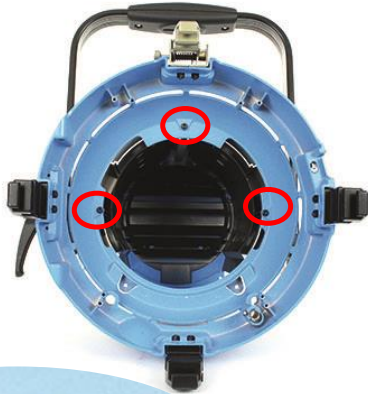


Remove cover.

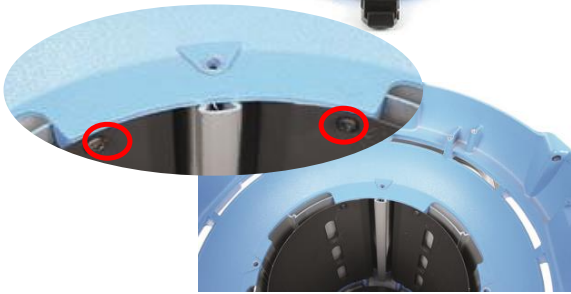


Remove 2 screws as shown.
Note: The wiring diagrams are only available to trained ARRI Service Technicians.

Stirrup



Remove lens door, reflector, SSA and housing
Remove 3 screws on the inside of the front casting (Torx 20.)



Remove two screws (Torx 15) from the internal baffle. Remove the front casting.



Loosen 4 screws (Torx 20.) Two on each side on the brackets. Do not remove!



Slide out the stirrup

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 lamphed 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.