



**Bidirectional Medium-/High-Intensity Elevated Light (EL-EAH)
Runway Edge, Runway Threshold, Runway End, Stopway**

User Manual

UM-0046, Rev. 1.2, 2019/05/08


**ADB
SAFEGATE**

A.0 Disclaimer / Standard Warranty

CE certification

The equipment listed as CE certified means that the product complies with the essential requirements concerning safety and hygiene. The directives that have been taken into consideration in the design are available on written request to ADB SAFEGATE.

ETL certification

The equipment listed as ETL certified means that the product complies with the essential requirements concerning safety and FAA Airfield regulations. The directives that have been taken into consideration in the design are available on written request to ADB SAFEGATE.

LED Product Guarantee

Where applicable, per FAA EB67 (applicable edition), ADB SAFEGATE L858(L) Airfield Guidance Signs are warranted against electrical defects in design or manufacture of the LED or LED specific circuitry for a period of 4 years. ADB SAFEGATE LED light fixtures (with the exception of obstruction lighting) are warranted against mechanical and physical defects in design or manufacture for a period of 12 months from date of installation; and are warranted against electrical defects in design or manufacture of the LED or LED specific circuitry for a period of 4 years per FAA EB67 (applicable edition).



Note

See your sales order contract for a complete warranty description. In some specific cases, deviations are (to be) accepted in the contract, which will supersede the standard warranty.

Standard Product Guarantee

Products of ADB SAFEGATE manufacture are guaranteed against mechanical, electrical, and physical defects (excluding lamps) which may occur during proper and normal use for a period of one year from the date of installation or 2 years from date of shipment and are guaranteed to be merchantable and fit for the ordinary purposes for which such products are made. ADB SAFEGATE L858 Airfield Guidance Signs are warranted against mechanical and physical defects in design or manufacture for a period of 2 years from date of installation per FAA AC 150/5345-44 (applicable edition).



Note

See your sales order contract for a complete warranty description.

All Products Guarantee

LED Products of ADB SAFEGATE, manufactured and sold by ADB SAFEGATE or its licensed representatives, meets the corresponding requirements of FAA, ICAO and IEC.

ADB SAFEGATE will correct by repair or replacement per the applicable guarantee above, at its option, equipment or parts which fail because of mechanical, electrical or physical defects, provided that the goods have been properly handled and stored prior to installation, properly installed and properly operated after installation, and provided further that Buyer gives ADB SAFEGATE written notice of such defects after delivery of the goods to Buyer. Refer to the Safety section for more information on Material Handling Precautions and Storage precautions that must be followed.

ADB SAFEGATE reserves the right to examine goods upon which a claim is made. Said goods must be presented in the same condition as when the defect therein was discovered. ADB SAFEGATE further reserves the right to require the return of such goods to establish any claim.

ADB SAFEGATE's obligation under this guarantee is limited to making repair or replacement within a reasonable time after receipt of such written notice and does not include any other costs such as the cost of removal of defective part, installation of repaired product, labor or consequential damages of any kind, the exclusive remedy being to require such new parts to be furnished.

ADB SAFEGATE's liability under no circumstances will exceed the contract price of goods claimed to be defective. Any returns under this guarantee are to be on a transportation charges prepaid basis. For products not manufactured by, but sold by ADB SAFEGATE, warranty is limited to that extended by the original manufacturer.

This is ADB SAFEGATE's sole guarantee and warranty with respect to the goods; there are no express warranties or warranties of fitness for any particular purpose or any implied warranties of fitness for any particular purpose or any implied warranties other than those made expressly herein. All such warranties being expressly disclaimed.

Liability



WARNING

Use of the equipment in ways other than described in the catalogue leaflet and the manual may result in personal injury, death, or property and equipment damage. Use this equipment only as described in the manual.

ADB SAFEGATE cannot be held responsible for injuries or damages resulting from non-standard, unintended uses of its equipment. The equipment is designed and intended only for the purpose described in the manual. Uses not described in the manual are considered unintended uses and may result in serious personal injury, death or property damage.

Unintended uses includes the following actions:

- Making changes to equipment that have not been recommended or described in this manual or using parts that are not genuine ADB SAFEGATE replacement parts or accessories.
- Failing to make sure that auxiliary equipment complies with approval agency requirements, local codes, and all applicable safety standards if not in contradiction with the general rules.
- Using materials or auxiliary equipment that are inappropriate or incompatible with your ADB SAFEGATE equipment.
- Allowing unskilled personnel to perform any task on or with the equipment.

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1.0 Safety

Introduction to Safety

This section contains general safety instructions for installing and using ADB SAFEGATE equipment. Some safety instructions may not apply to the equipment in this manual. Task- and equipment-specific warnings are included in other sections of this manual where appropriate.

1.1 Safety Messages

HAZARD Icons used in the manual

For all HAZARD symbols in use, see the Safety section. All symbols must comply with ISO and ANSI standards.

Carefully read and observe all safety instructions in this manual, which alert you to safety hazards and conditions that may result in personal injury, death or property and equipment damage and are accompanied by the symbol shown below.



WARNING

Failure to observe a warning may result in personal injury, death or equipment damage.



DANGER - Risk of electrical shock or ARC FLASH

Disconnect equipment from line voltage. Failure to observe this warning may result in personal injury, death, or equipment damage. ARC Flash may cause blindness, severe burns or death.



WARNING - Wear personal protective equipment

Failure to observe may result in serious injury.



WARNING - Do not touch

Failure to observe this warning may result in personal injury, death, or equipment damage.



CAUTION

Failure to observe a caution may result in equipment damage.

Qualified Personnel



Important Information

The term **qualified personnel** is defined here as individuals who thoroughly understand the equipment and its safe operation, maintenance and repair. Qualified personnel are physically capable of performing the required tasks, familiar with all relevant safety rules and regulations and have been trained to safely install, operate, maintain and repair the equipment. It is the responsibility of the company operating this equipment to ensure that its personnel meet these requirements.

Always use required personal protective equipment (PPE) and follow safe electrical work practice.

1.1.1 Introduction to Safety



CAUTION

Unsafe Equipment Use

This equipment may contain electrostatic devices, hazardous voltages and sharp edges on components

- Read installation instructions in their entirety before starting installation.
- Become familiar with the general safety instructions in this section of the manual before installing, operating, maintaining or repairing this equipment.
- Read and carefully follow the instructions throughout this manual for performing specific tasks and working with specific equipment.
- Make this manual available to personnel installing, operating, maintaining or repairing this equipment.
- Follow all applicable safety procedures required by your company, industry standards and government or other regulatory agencies.
- Install all electrical connections to local code.
- Use only electrical wire of sufficient gauge and insulation to handle the rated current demand. All wiring must meet local codes.
- Route electrical wiring along a protected path. Make sure they will not be damaged by moving equipment.
- Protect components from damage, wear, and harsh environment conditions.
- Allow ample room for maintenance, panel accessibility, and cover removal.
- Protect equipment with safety devices as specified by applicable safety regulations
- If safety devices must be removed for installation, install them immediately after the work is completed and check them for proper functioning prior to returning power to the circuit.

Failure to follow this instruction can result in serious injury or equipment damage

Additional Reference Materials



Important Information

- IEC - International Standards and Conformity Assessment for all electrical, electronic and related technologies.
- IEC 60364 - Electrical Installations in Buildings.
- FAA Advisory: AC 150/5340-26 (current edition), chapter 45, section 4, Maintenance of Airport Visual Aid Facilities.
- Maintenance personnel must refer to the maintenance procedure described in the ICAO Airport Services Manual, Part 9.
- ANSI/NFPA 79, Electrical Standards for Metalworking Machine Tools.
- National and local electrical codes and standards.

1.1.2 Intended Use



CAUTION

Use this equipment as intended by the manufacturer

This equipment is designed to perform a specific function, do not use this equipment for other purposes

- Using this equipment in ways other than described in this manual may result in personal injury, death or property and equipment damage. Use this equipment only as described in this manual.

Failure to follow this instruction can result in serious injury or equipment damage

1.1.3 Material Handling Precautions: Storage



CAUTION

Improper Storage

Store this equipment properly

- If equipment is to be stored prior to installation, it must be protected from the weather and kept free of condensation and dust.

Failure to follow this instruction can result in equipment damage

1.1.4 Operation Safety



CAUTION

Improper Operation

Do Not Operate this equipment other than as specified by the manufacturer

- Only qualified personnel, physically capable of operating the equipment and with no impairments in their judgment or reaction times, should operate this equipment.
- Read all system component manuals before operating this equipment. A thorough understanding of system components and their operation will help you operate the system safely and efficiently.
- Before starting this equipment, check all safety interlocks, fire-detection systems, and protective devices such as panels and covers. Make sure all devices are fully functional. Do not operate the system if these devices are not working properly. Do not deactivate or bypass automatic safety interlocks or locked-out electrical disconnects or pneumatic valves.
- Protect equipment with safety devices as specified by applicable safety regulations.
- If safety devices must be removed for installation, install them immediately after the work is completed and check them for proper functioning.
- Route electrical wiring along a protected path. Make sure they will not be damaged by moving equipment.
- Never operate equipment with a known malfunction.
- Do not attempt to operate or service electrical equipment if standing water is present.
- Use this equipment only in the environments for which it is rated. Do not operate this equipment in humid, flammable, or explosive environments unless it has been rated for safe operation in these environments.
- Never touch exposed electrical connections on equipment while the power is ON.

Failure to follow these instructions can result in equipment damage

1.1.5 Maintenance Safety



DANGER

Electric Shock Hazard

This equipment may contain electrostatic devices

- Do not operate a system that contains malfunctioning components. If a component malfunctions, turn the system OFF immediately.
- Disconnect and lock out electrical power.
- Allow only qualified personnel to make repairs. Repair or replace the malfunctioning component according to instructions provided in its manual.

Failure to follow these instructions can result in death or equipment damage

1.1.6 Material Handling Precautions, ESD



CAUTION

Electrostatic Sensitive Devices

This equipment may contain electrostatic devices

- Protect from electrostatic discharge.
- Electronic modules and components should be touched only when this is unavoidable e.g. soldering, replacement.
- Before touching any component of the cabinet you shall bring your body to the same potential as the cabinet by touching a conductive earthed part of the cabinet.
- Electronic modules or components must not be brought in contact with highly insulating materials such as plastic sheets, synthetic fiber clothing. They must be laid down on conductive surfaces.
- The tip of the soldering iron must be grounded.
- Electronic modules and components must be stored and transported in conductive packing.

Failure to follow this instruction can result in equipment damage

1.1.7 Arc Flash and Electric Shock Hazard



DANGER

Series Circuits have Hazardous Voltages

This equipment produces high voltages to maintain the specified current - Do NOT Disconnect while energized.

- Allow only qualified personnel to perform maintenance, troubleshooting, and repair tasks.
- Only persons who are properly trained and familiar with ADB SAFEGATE equipment are permitted to service this equipment.
- An open airfield current circuit is capable of generating >5000 Vac and may appear OFF to a meter.
- Never unplug a device from a constant current circuit while it is operating; Arc flash may result.
- Disconnect and lock out electrical power.
- Always use safety devices when working on this equipment.
- Follow the recommended maintenance procedures in the product manuals.
- Do not service or adjust any equipment unless another person trained in first aid and CPR is present.
- Connect all disconnected equipment ground cables and wires after servicing equipment. Ground all conductive equipment.
- Use only approved ADB SAFEGATE replacement parts. Using unapproved parts or making unapproved modifications to equipment may void agency approvals and create safety hazards.
- Check the interlock systems periodically to ensure their effectiveness.
- Do not attempt to service electrical equipment if standing water is present. Use caution when servicing electrical equipment in a high-humidity environment.
- Use tools with insulated handles when working with airfield electrical equipment.

Failure to follow these instructions can result in death or equipment damage

2.0 Introduction

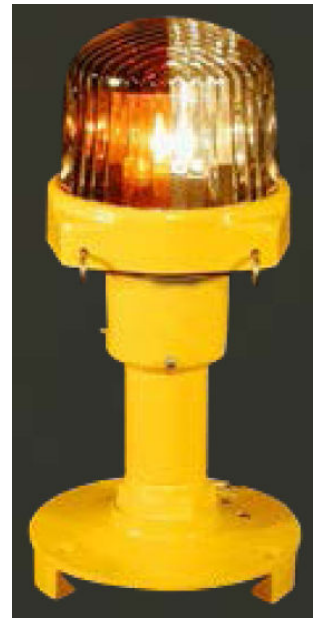
In this section you find a general description and safety instructions related to the installation and usage of the fitting.

The EL-EAH is a bi-directional high intensity light with the following uses:

- Runway Edge
- Runway Threshold
- Runway End
- Stopway

The fitting has many advantages and special features:

- Low power consumption: Only 150 Watts in CAT III
- Lamp life greater than 1,000 hours at 6.6 Amps
- Resistance to jet blast, complying with ICAO requirement (300 mph)
- Frangibility of the fitting complying with FAA standards (350 mph)
- High speed replacement by hinging of the optical head
- Power supply cable protected by support
- Smooth glass dome outer surface
- Easy adjustment by means three Allen screws locking onto the adjustable body
- Easy maintenance carried out in the workshop by removing the optical head
- Simple but sturdy design
- Light weight: Less than 2 kg with the lamp



2.1 Delivery of the fitting

Each unit is individually packed in a durable cardboard box, labeled with its reference name and code. On request one set of fitting documents (commercial brochure, installation manual, maintenance manual and spare parts list) is delivered with the fittings.

Each fitting is delivered equipped with one connector but without lamp and colored filter(s). The Pk30d lamp and if necessary the colored filter(s) must be mounted on site in the fitting before its installation on the field.

3.0 Installation

In this section you can find a description of the different steps for successful installation of the fitting. Before you start, make sure you have read and understand [§1.1 Safety Instructions](#).

When removing the fitting from its packaging box, make sure that nothing is broken and all parts are included.

Check support and base tapping fit as the screw tapping of the frangible support can be either 2" NPS¹ or 2" BPS².

Tools to use

The following tools and accessories are required for installation and removal of the unit:

Standard tools and accessories:

- Box spanners 7 and 16 mm or 17 mm
- Open end spanners 10 and 50
- Allen keys no.3
- Screwdrivers
- Crimping tool
- One brush or cloth
- Methylated alcohol

Special tools and accessories:

- THORN leveling tool

The installation steps refer to:

1. Replacing the optical head
2. Opening/ closing the optical head
3. Mounting the filter
4. Mounting the lamp
5. Mounting the fitting on its support
6. Making adjustments

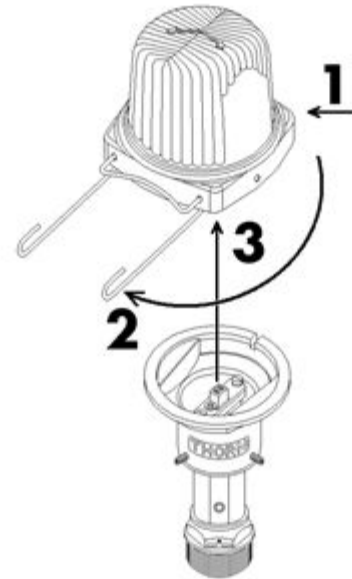
¹ American standard: 11.5 threads per inch

² British standard: 11 threads per inch

3.1 Replacing the optical head

Remove

1. Open the closing spring of the optical head.
2. Remove the glass dome carefully.



Replace

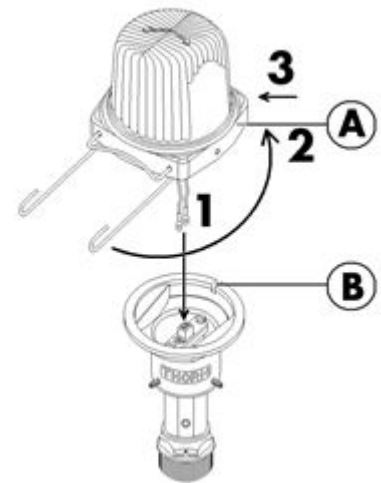
1. Connect the two wires of the lamp of the new optical head.
2. Install the new optical head on the frangible leg.



Note

In order to not make a mistake during the installation of the optical head on the frangible leg: The support plate of the optical head has on its bottom special dots (A) which must be inserted in the dedicated hole (B) on the top of the frangible leg assembly

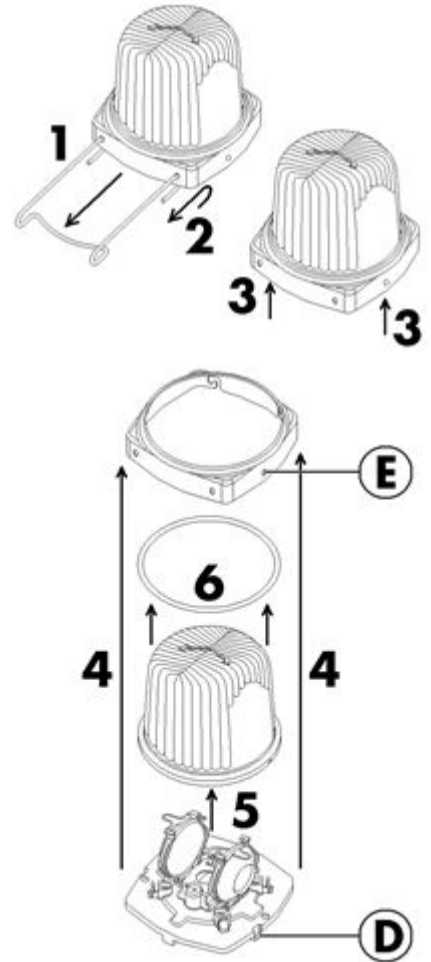
3. Close the closing spring of the optical head.



3.2 Opening and closing the optical head

Open

1. Remove the optical head of the EL-EAH from the frangible leg (see [Replacing the optical head](#)).
2. Remove the closing spring from the optical head. Slide it through its fixing holes on the side.
3. Use a big flat screwdriver to remove the dome fixture ring. Successively on both sides to take the two balls (D) of the optical support plate out of the two corresponding holes of the fixture ring (E).
4. Remove the fixture ring.
5. Remove the glass dome and its gasket from the optical support plate.
6. Remove gasket from the glass dome.

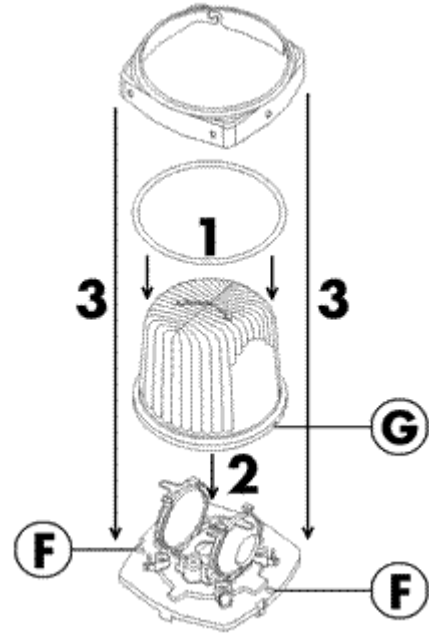


Close

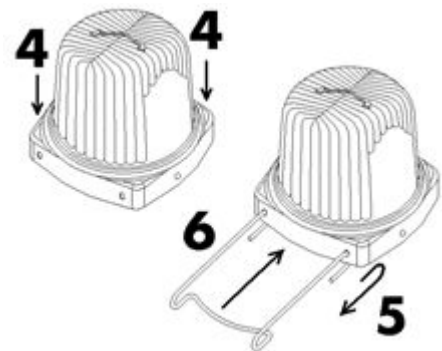
1. Install the gasket on the glass dome.
2. Install the glass dome and its gasket on the optical support plate.
3. (c) Install the fixture ring on the glass dome.

i Note

In order to not make a mistake during the installation of the glass dome on the optical support plate: The support plate has on its top two special dots (F) which must be inserted in the dedicated holes (G) on the glass dome



4. Push strongly on the fixture ring until the two balls of the optical support plate are in the two corresponding holes of the fixture ring (E).
5. Put the closing spring on the optical head back in place. Slide it through its fixing holes on the side.
6. Replace the optical head of the EL-EAH on the frangible leg (see [Replacing the optical head](#)).



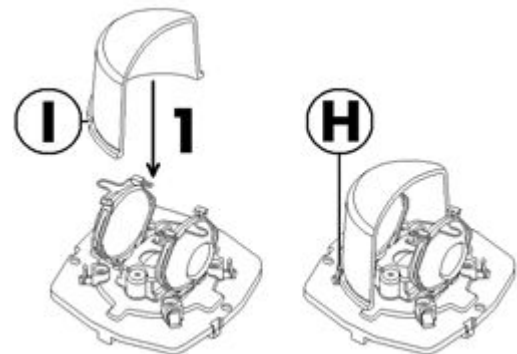
3.3 Mounting a filter

1. Remove the optical head of the EL-EAH from the frangible leg (see [Replacing the optical head](#)).
2. Open the optical head of the EL-EAH.
3. Place the filter(s) on the optical support plate in the filter fixing springs.

i Note

Insert the two fixing springs of the support plate (H) in the two cuts (I) present on the bottom of the filter.
Take care to put the filter(s) on the correct side of the fitting.

4. Close the optical head of the EL-EAH.
5. Replace the optical head of the EL-EAH on the frangible leg (see [Replacing the optical head](#)).



3.4 Mounting a lamp



CAUTION

Do not touch the lamp with bare fingers. The lamp is usually supplied with a protective sleeve. Keep it on until the end of the installation. In case of contact of the lamp quartz with foreign elements, clean it with alcohol and a clean cloth. Only Pk30d 200, 150 or 100W - 6.6A with focal at 16mm should be used.

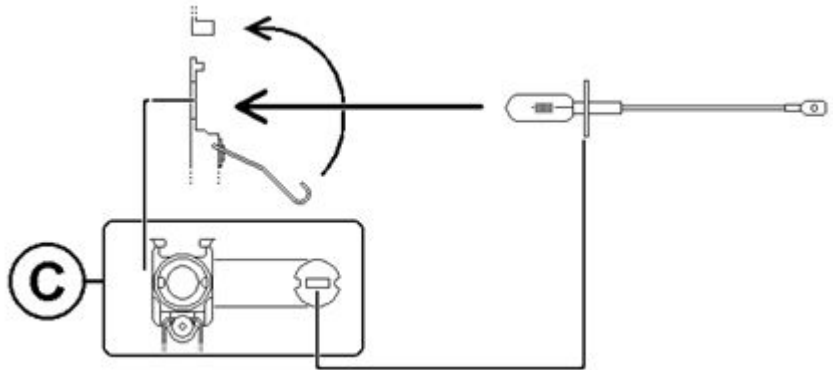
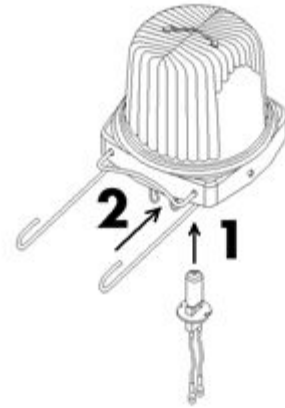
1. Remove the optical head of the EL-EAH from the frangible leg (see [Replacing the optical head](#)).
2. Install a lamp in the optical head.



Note

Ensure that the indentations in the Lamp Holder line up with those in the Pk30d Lamp (see step 3).

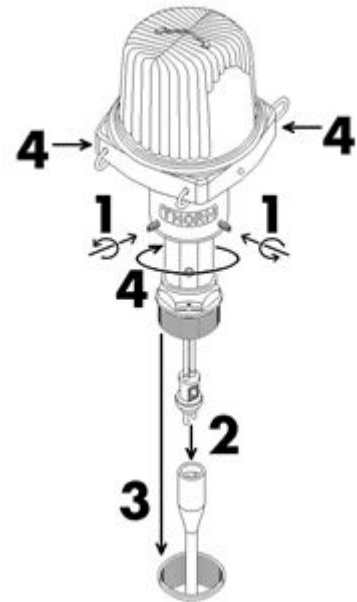
3. Close the lamp fixing spring.
4. Lock the two ends of the lamp fixing spring.
5. Replace the optical head of the EL-EAH on the frangible leg (see [Replacing the optical head](#)).



3.5 Mounting the fitting on its support

Whatever type of support is used to hold the EL-EAH fitting (tripod stand, elbow tube or base plate) this support comprise in is center one 2" NPS or BSP thread. The installation of the fitting consists to make the following operations to mount mechanically the fitting and to connect the fitting electrically.

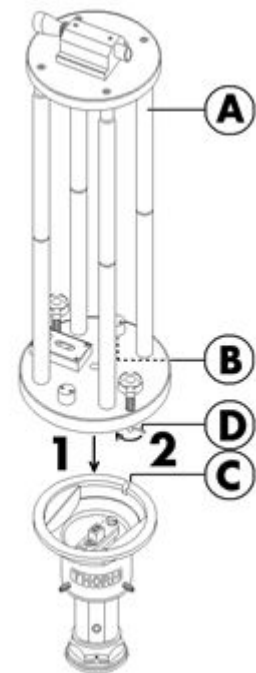
1. Unscrew the three Allen screws slightly using the BTR key no 3 to allow for the swiveling optical head to turn around on the frangible support.
2. Connect the two male and female connectors.
3. Screw (open end spanner 50) the frangible leg on tight on support thread. Hold the optical head during the whole operation to prevent it turning when tightening the frangible leg.
4. The fitting is ready for final level setting.



3.6 Making adjustments

Mount the adjustment tool on the fitting

1. Check that:
 - a. The frangible leg is screwed and locked on its support.
 - b. The toe-in of the optical head is correct.
2. Remove the optical head of the EL-EAH from the frangible leg assembly (see [Replacing the optical head](#)).
3. Mount and fix the adjustment tools (A) on the top of the leg. To do this:
 - a. Put the base of the tool on the top of the leg. Doing this, take care to insert the metal dots (B) localized on the bottom of the tool into the holes (C) localized on the top of the leg.
 - b. Fix the mounting by hooking the edges of the top of the leg with the two dedicated bars (D) on the tool.
4. Now the fitting is ready for the adjustment operations.



Adjust in site and azimuth

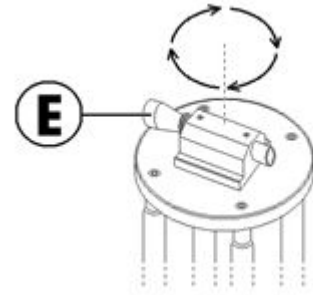
The EL-EAH light fitting is a bidirectional light fitting and must be, after its installation on field, adjusted in azimuth and site. The THORN specific adjustment tool is dedicated to make the adjustment of the direction (sight telescope (E)) and of the horizontally (two spirit levels (F)) of the EL-EAH optical head.



Note

A good way to make the adjustment of the direction of the fitting is to use the other fitting as target for the aiming, since it is normally installed on the same line.

Depending on the position of the fitting on the airfield (beginning or end of the runway edge, right side or left side of the runway threshold/end, etc..), it is easier to aim forward, backward, on the right side or on the left side. In order to allow these four types of aiming, the sight telescope installed at the top of the tool is movable and has four fix positions corresponding to the four aiming possibilities.

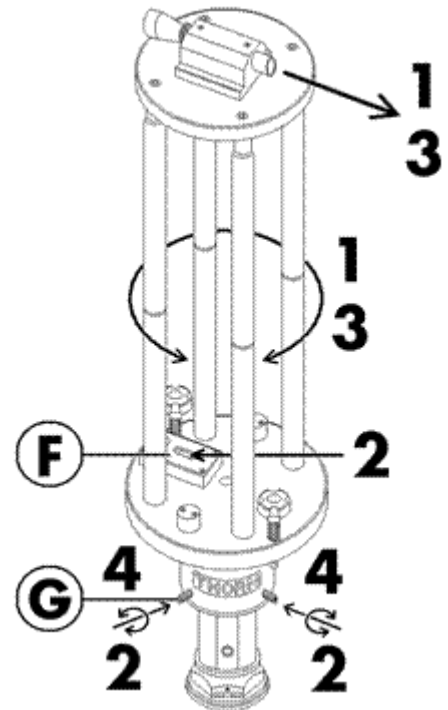


1. If necessary unscrew the 3 Allen screws (G) of the frangible leg slightly using a BTR key no 3 to allow for the swiveling optical head to turn.
2. Using the sight telescope of the tool and twisting the tool/leg, make a rough aiming of the fitting.
3. Playing on the 3 Allen screws of the frangible leg adjust the horizontally of the fitting. Put the bubble of the two spirit levels in the middle.
4. Using the sight telescope of the tool and twisting carefully the tool/leg assembly, make a fine aiming of the fitting.
5. Re-check the horizontally of the leg.
6. Fix the adjustment screwing the 3 Allen screws of the frangible leg. Screw a little one by one the three screws and keep doing it until they are locked.



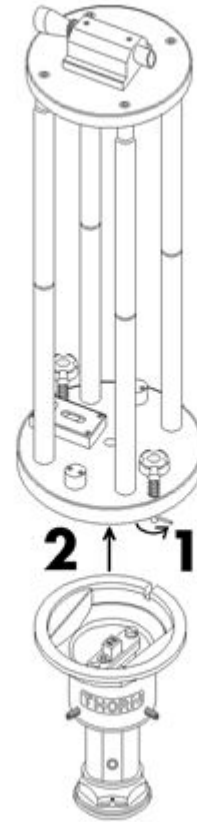
Note

During this whole operation check that the adjustments are not modified.



Remove the adjustment tool

1. Remove the adjustment tool from the frangible leg. To do this:
 - a. Remove the two bars of the tool from the edges of the top of the leg.
 - b. Remove the tool from the top of the leg.
2. Replace the optical head of the EL-EAH on the frangible leg assemble (see [Replacing the optical head](#)).
3. Now the EL-EAH is adjusted. The tool can be used to make the adjustment of another EL-EAH fitting.



4.0 Maintenance

In this section you find a description of the different steps for the maintenance of the fitting.

Before you start, make sure you have read and understand [§1.1 Safety Instructions](#).

Find out the location of the light unit that needs maintenance. If the purpose is to replace an existing light unit with new one, make sure that corresponding unit is available.



Warning

When a fitting has been removed from its base, the base must be either fitted with a cover or a reserve fitting put in its place.

It is recommended that only authorized personnel disassemble fittings with prior agreement from ADB SAFEGATE.

4.1 Basic maintenance program

There are recommended maintenance tasks to ensure that the equipment is in correct operating condition.

Maintenance tasks	
Weekly	<ul style="list-style-type: none"> • Visual inspection of the fitting. • Removal of dust from external surfaces of the fitting.
Monthly	<ul style="list-style-type: none"> • Check of the optical window, check for mechanical damage. • Check for proper fixing of the fitting in its base.
Yearly	<ul style="list-style-type: none"> • Detailed inspection of the fitting. • Check of the body resistance, check for mechanical damage (for example cracks around prism windows). • Clean of the optical windows.

A daily function check is referred to in the document:

ICAO, Airport Services Manual Part 9, Airport Maintenance Practice and FAA AC 150/5340-26A, Maintenance of airport visual aids facilities.

The light is designed for outdoor operation, however storing the light outside without using it is a risk for damage to light components. For a longer storage time (more than a week), it is recommended to store the light indoors in a dry and dust free environment and at room temperature. Proper storage ensures trouble free replacement procedures. It is strongly recommended not to store any electrical equipment outside.

4.2 Workshop maintenance

Before you start, make sure you have read and understand [§1.1 Safety Instructions](#).

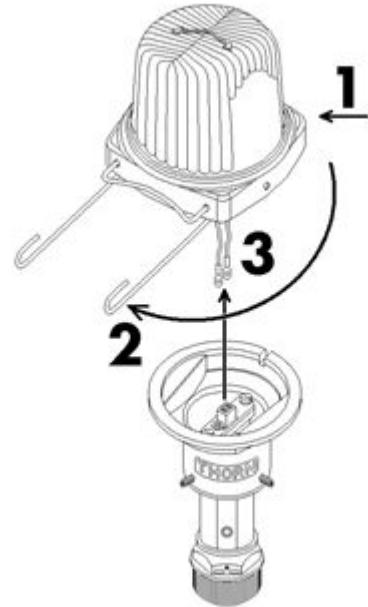
The workshop maintenance refers to following:

1. Replacing the optical head
2. Replacing the lamp
3. Opening and closing the optical head
4. Replacing the glass dome
5. Replacing a filter
6. Replacing a lens

4.2.1 Replacing the optical head

Remove

1. Open the closing spring of the optical head.
2. Remove the glass dome carefully.
3. Disconnect the lamp wires.
4. If necessary, check the level and azimuth settings of the stand.



Replace

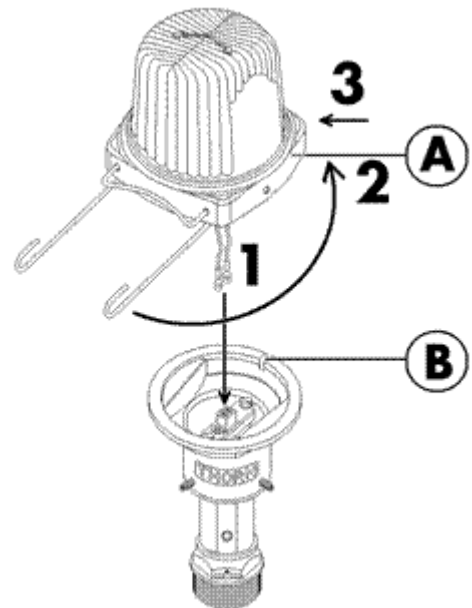
1. Connect the two wires of the lamp of the new optical head.
2. Install the new optical head on the frangible leg.



Note

In order to not make a mistake during the installation of the optical head on the frangible leg. The support plate of the optical head comprises on its bottom a special dots (A) which must be inserted in the dedicated hole (B) of the top of the frangible leg assembly.

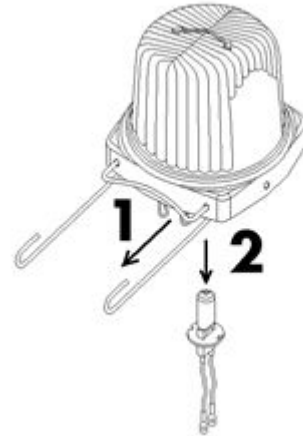
3. Close the closing spring of the optical head.



4.2.2 Replacing the lamp

Remove

1. Remove the optical head of the EL-EAH from the frangible leg (see [Replacing the optical head](#)).
2. Unlock the two ends of the lamp fixing spring.
3. Open the lamp fixing spring.
4. Remove the defective lamp from the optical head.



Replace

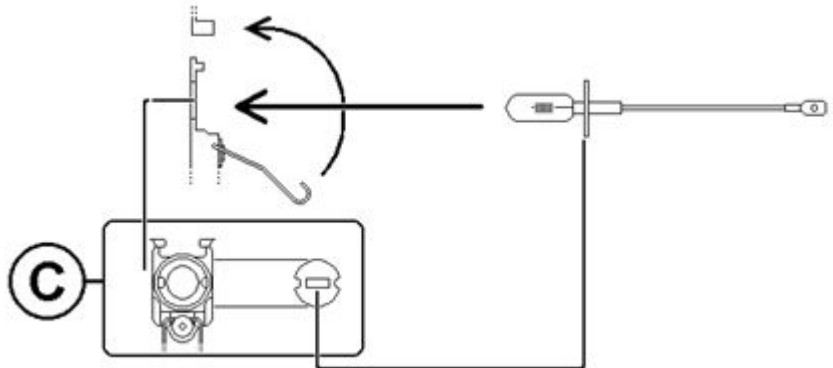
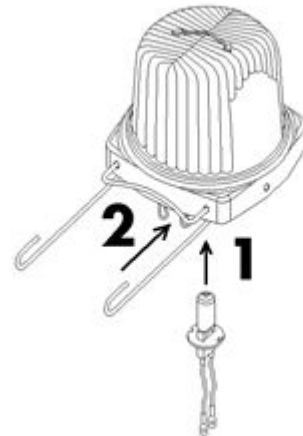
1. Install a new lamp in the optical head.



Note

Ensure that the indentations in the Lamp Holder line up with those in the Pk30d Lamp (see step 3).

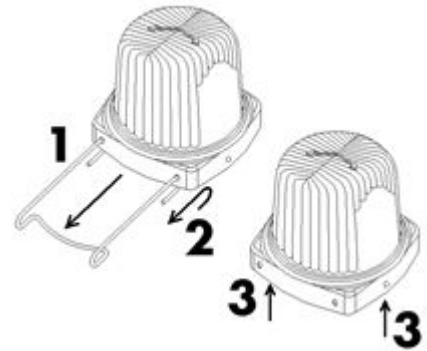
2. Close the lamp fixing spring.
3. Lock the two ends of the lamp fixing spring.
4. Replace the optical head of the EL-EAH on the frangible leg (see [Replacing the optical head](#)).



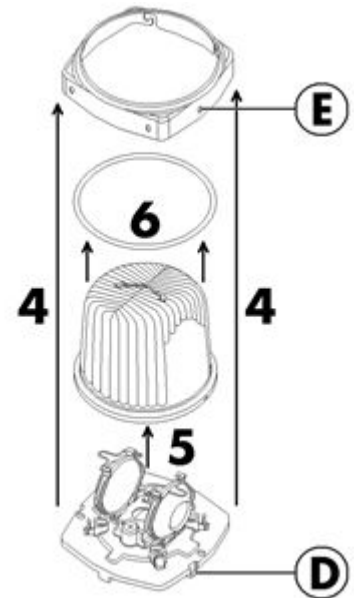
4.2.3 Opening and closing the optical head

Open

1. Remove the optical head of the EL-EAH from the frangible leg (see [Replacing the optical head](#)).
2. Remove the lamp from the optical head of the EL-EAH (see [Replacing the lamp](#)).
3. Remove the closing spring from the optical head. Slide it through its fixing holes by the side.



4. Use a big flat screwdriver to remove the dome fixture ring. Successively on both sides to take the two balls (D) of the optical support plate out of the two corresponding hole of the fixture ring (E).
5. Remove the fixture ring.
6. Remove the glass dome and its gasket from the optical support plate.
7. Remove gasket from the glass dome.



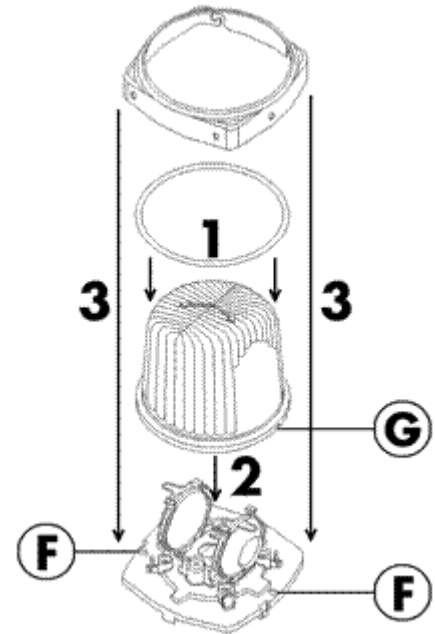
Close

1. Install the gasket on the glass dome.
2. Install the glass dome and its gasket on the optical support plate.

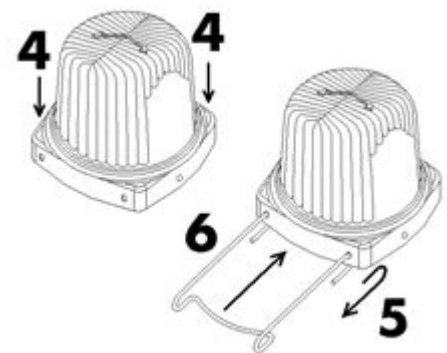
i Note

In order to not make a mistake during the installation of the glass dome on the optical support plate. The support plate comprise on its top two special dots (F) which must be inserted in the dedicated holes (G) of the glass dome.

3. Install the fixture ring on the glass dome.
4. Push strongly on the fixture ring until the two balls of the optical support plate are in the two corresponding holes of the fixture ring (E).



5. Put the closing spring back in place on the optical head. Slide it through its fixing holes by the side.
6. Replace the lamp on the optical head of the EL-EAH (see [Replacing the lamp](#)).
7. Replace the optical head of the EL-EAH on the frangible leg (see [Replacing the optical head](#)).



4.2.4 Replacing the glass dome

Remove

1. Remove the optical head of the EL-EAH from the frangible leg (see [Replacing the optical head](#)).
2. Remove the lamp from the optical head of the EL-EAH (see [Replacing the lamp](#)).
3. Open the optical head of the EL-EAH (see [Opening and closing the optical head](#)).
4. Remove the gasket of the glass dome.

Replace a gasket

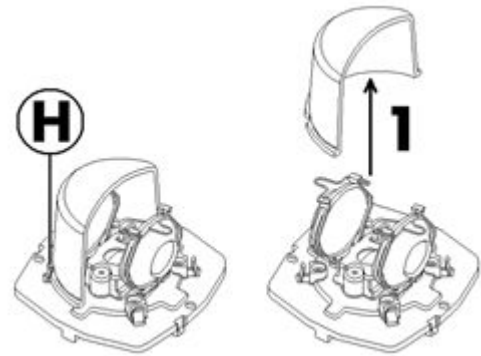
Replace a new gasket on the new glass dome.

1. Close the optical head of the EL-EAH (see [Opening and closing the optical head](#)).
2. Replace the lamp on the optical head of the EL-EAH (see [Replacing the lamp](#)).
3. Replace the optical head of the EL-EAH on the frangible leg (see [Replacing the optical head](#)).

4.2.5 Replacing a filter

Remove

1. Remove the optical head of the EL-EAH from the frangible leg (see 3.2.1 Replacing the Optical Head).
2. Remove the lamp from the optical head of the EL-EAH (see [Replacing the lamp](#)).
3. Open the optical head of the EL-EAH (see [Opening and closing the optical head](#)).
4. Pull up the filter to remove it from its fixing springs (H).



Replace

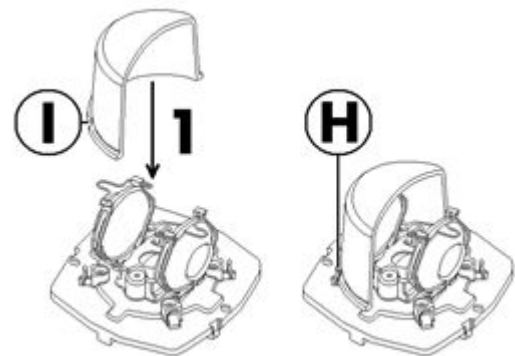
1. Replace a new filter on the optical support plate in the filter fixing springs.



Note

Insert the two fixing springs of the support plate (H) in the two cuts (I) present on the bottom of the filter.

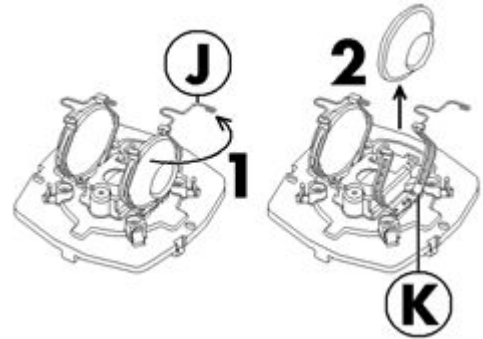
2. Close the optical head of the EL-EAH (see [Opening and closing the optical head](#)).
3. Replace the lamp on the optical head of the EL-EAH (see [Replacing the lamp](#)).
4. Replace the optical head of the EL-EAH on the frangible leg (see 3.2.1 Replacing the Optical Head).



4.2.6 Replacing a lens

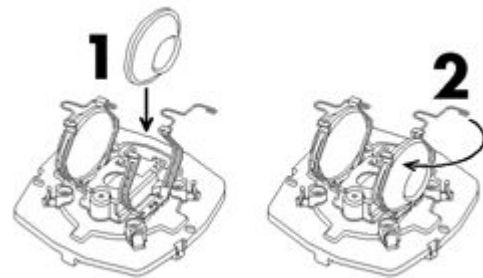
Remove

1. Remove the optical head of the EL-EAH from the frangible leg (see [Replacing the optical head](#)).
2. Remove the lamp from the optical head of the EL-EAH (see [Replacing the lamp](#)).
3. Open the optical head of the EL-EAH (see [Opening and closing the optical head](#)).
4. If necessary remove the filter (see [Replacing a filter](#)).
5. Open the locking spring (J).
6. Remove the lens from its holder (K).



Replace

1. Replace a new lens in the lens holder.
2. Close the locking springs.
3. If necessary replace the filter (see [Replacing a filter](#)).
4. Close the optical head of the EL-EAH (see [Opening and closing the optical head](#)).
5. Replace the lamp on the optical head of the EL-EAH (see [Replacing the lamp](#)).
6. Replace the optical head of the EL-EAH on the frangible leg (see [Replacing the optical head](#)).



5.0 Spare parts

Spare parts are available for Airfield Lighting. For more information and assistance with ordering spare parts, contact ADB SAFEGATE, www.adbsafegate.com.

6.0 SUPPORT

6.1 ADB SAFEGATE Website

The ADB SAFEGATE Website, www.adbsafegate.com, offers information regarding our airport solutions, products, company, news, links, downloads, references, contacts and more.



Note

There is also a **Client/Partner login** area for the latest information and updates, if available.

6.2 Re-cycling

6.2.1 Local Authority Re-cycling

The disposal of Safegate Group products is to be made at an applicable collection point for the recycling of electrical and electronic equipment. The correct disposal of equipment prevents any potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling. The recycling of materials helps to conserve natural resources. For more detailed information about recycling of products, contact your local authority city office.

6.2.2 ADB SAFEGATE Re-cycling

ADB SAFEGATE is fully committed to environmentally-conscious manufacturing with strict monitoring of our own processes as well as supplier components and sub-contractor operations. ADB SAFEGATE offers a re-cycling program for our products to all customers worldwide, whether or not the products were sold within the EU.

ADB SAFEGATE products and/or specific electrical and electronic component parts which are fully removed/separated from any customer equipment and returned will be accepted for our recycling program.

All items returned must be clearly labelled as follows:

- For ROHS/WEEE Re-cycling
- Sender contact information (Name, Business Address, Phone number).
- Main Unit Serial Number.

ADB SAFEGATE will continue to monitor and update according for any future requirements for EU directives as and when EU member states implement new regulations and or amendments. It is our aim to maintain our compliance plan and assist our customers.



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