



SL730 Series

LED Minor Surgery Lights

User Manual & Installation Guide

QAM.SL730.0915.6

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1. Introduction

Thank you for choosing a Daray SL730 Series minor surgery light.

The SL730 Series of lights are specifically designed to meet the demanding needs of today's medical department whilst providing the finest quality design with superior performance, reliability and value.

This user & installation guide has been provided to give detailed descriptions covering the performance, operation and safety information of the device. Its recommended that users read through this manual before using the device so they are aware of how to operate the device and all of its features appropriately. It also contains all the information you need for the installation and maintenance of the light.

Restrictions and Liabilities

Information in this document is subject to change and does not represent a commitment by DARAY. Changes made to the information in this document will be incorporated in new editions of the publication. No responsibility is assumed by DARAY for the use or reliability of software or equipment that is not supplied by DARAY

For further information on our product range and find out more about our company please visit www.daray.co.uk or call **0333 321 0971**

This product was designed & manufactured in Great Britain by:

Daray Ltd.
Marquis Drive, Moira
Swadlincote
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DE12 6EJ

1.1 Supported Lights

The Following Models are supported in this Manual	
SL730 Minor surgery Light	SL730LM Mobile Mounted Edition
	SL730LC Ceiling Mounted Edition
	SL730LW Wall Mounted Edition

1.2 Lighting Specification

Light Specifications	
Light intensity @ 0.75m	175,000 lux
Light intensity @ 1m	125,000 lux
Colour Temperature	4,300K
Colour Rendering Index (CRI)	>93
Light Field Diameter (d50)	100-250mm
Depth of Illumination	800mm
Light Intensity Adjustment Range	10 - 100%
Radiated UV energy with wavelength less than 400nm (w/m ²)	<0.002
Input Rating	220V 50Hz
Power	70W
Average working life	>50,000 Hours

1.3 Pre-Installation Responsibilities

This document is a guide to the steps that need to be performed to correctly install the SL730 Minor surgery light. However, the work required to be performed is the responsibility of the owner or designated contractor/s.

All fixings between Daray lights and the building super-structure must be approved by either the chief project engineer or an appropriate and competent structural assessor.

1.4 Component packing list

The components supplied by Daray for fitting / installation should be the following items in the specified quantities.

SL730 Mobile Mounted Pack List	Qty.
Lighthouse	1
Mobile Base with 4 wheels (2 lockable)	1
Lower vertical tubing	1
Upper vertical tubing + joint spigot	1
Suspension arm first section	1
Suspension arm Second Section (Hook Section)	1
IEC Power Lead	1
Manual	1

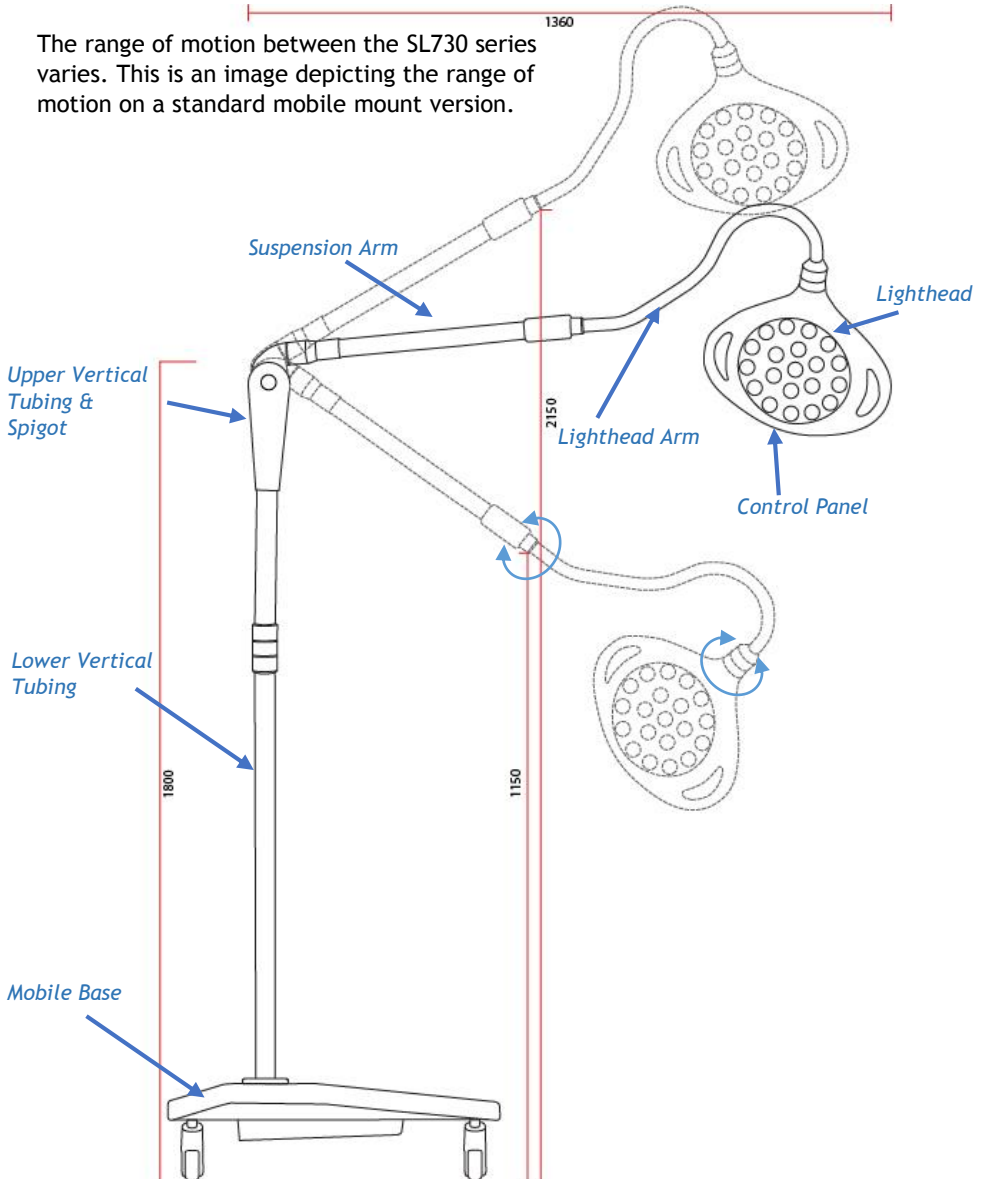
SL730 Ceiling Mounted Pack List	Qty.
Lighthouse	1
Ceiling Plate with downtube & Transformer	1
Primary Rotation arm and arm boss joint	1
Suspension arm first section	1
Suspension arm Second Section (Hook Section)	1
Manual	1

SL730 Wall Mounted Pack List	Qty.
Lighthouse	1
Wall Mount with rotation arm	1
Suspension arm first section	1
Suspension arm Second Section (Hook Section)	1
IEC Power Lead	1
Manual	1

2. Operation

2.1 Range of Motion

The range of motion between the SL730 series varies. This is an image depicting the range of motion on a standard mobile mount version.



2.2 Pre-Start Checks



Please check (when using the mobile version) that the power cable is without visible damage, harsh folds, knots or cuts in the rubberised coating.



Users should not look directly into the light as it is bright and will illuminate when powering on.



If you are using a mobile version; check that the cable is fully connected to the device and that the plug is fully inserted into the power socket, when switching the power on.



Please check (when applicable) that the head and arms are without visible damage, and all LED's are present in the head.

2.3 Battery Back-up (Optional)

The SL730 series has the capability of using a battery back-up system.

The battery should be conditioned before being used for the first time. Battery conditioning involves removing all the charge from the battery. Batteries should be conditioned regularly. Condition a battery when the device is stored for long periods, or when the charge becomes noticeably shorter.

Follow the steps below to condition a battery:

1. Disconnect the battery from the light.
2. Attach the battery in need of conditioning to a suitable electrical supply.
3. Charge the device uninterrupted for up to 10 hours.
4. Disconnect the electrical supply and re-attach the battery to the light, allow the light (while disconnected from its primary power source) to run on the battery until it shuts off.
5. Charge the battery until full charged again.
6. The battery is now conditioned.

Batteries can deteriorate over time, meaning a reduction in their performance.

To check the performance of a battery, follow the steps below:

1. Charge the battery uninterrupted for 10 hours.
2. Disconnect the mains supply to the light and allow it to run on the battery until it shuts off.
3. The operating time of the light reflects the condition of the battery. If the operating time is significantly lower than when first purchased despite conditioning it, you will need to replace the battery.

2.4 Powering On & Variable Intensity

The SL730 Series uses a single button (on the side of the head) to power the light on and off.

Next to this switch are 2 controls for the lights variable intensity; press the + button to change the light intensity up and the - button to reduce it.



2.5 Adjusting the Lighthead

The SL700 Series lights are secured using a large white, balanced and adjustable arm. The head itself has forward and backward motion through the hinge joint connecting the head to the tertiary arm.

The head can be adjusted through use of the handles located on the side of the head.



Care should be taken not to violently or forcibly adjust the head as this may damage the light.

3. Assembly Guide Section

3.1 Considerations



The procedures below are detailed to a high level however ***If in doubt please consult a qualified electrician.***

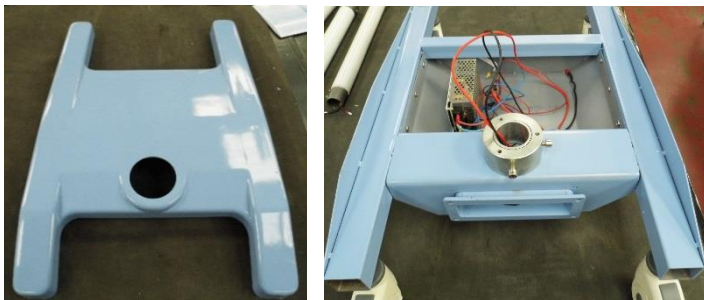
Live Electric Circuitry	All personnel working around live circuitry should be qualified and following proper procedures
Environmental Responsibility	Once our products are installed all packaging should be disposed of appropriately and recycled where appropriate and in accordance with local governing regulations.

3.2 Mobile Mounted Version

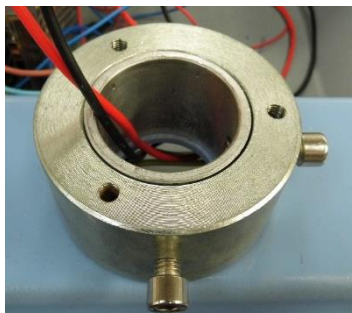
For the mobile assembly, the base should already have all casters in place, however if for some reason they are not, they can simply be pushed into the base and at the correct point they should click and lock in.

Making sure all the wheels are in place, set the base down facing up and lock the brakes of the casters: This will avoid movement during assembly.

Remove the top panel of the mobile base, this provides access to the electrical components and securing bolts for the vertical tubing.



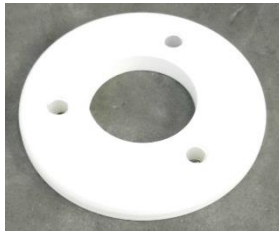
Loosen the 2 screws on the side of the downtube hole.



Retrieve the primary vertical tubing from the packaging, check the cable connections are fed through the hole in the base of the light then feed the cables through the tube (grooved edge first) while inserting the tube into the base. Re-tighten the securing screws to lock the vertical tubing securely.



Once the primary tubing is secured, replace the blue base cover by sliding it down over the tubing and onto the base. Place the white plastic ring from the packaging on over the tubing and insert 3 locking screws.



Remove the 3 screws from the top half of the lower vertical tubing and place to one side, now find the connectors to the cable section from the secondary section of vertical tubing and attach these connectors to the first section of tubing.

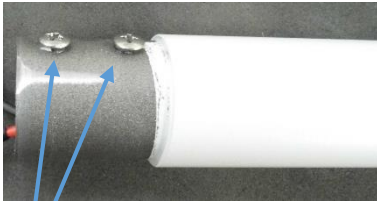


Warning, please observe the Cable Polarities and ensure that they match, incorrectly wiring the device will cause damage to the system

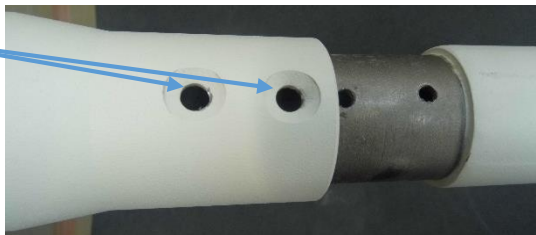
Tuck the wires inside and insert the upper vertical tubing into lower tubing. Now re-insert the 3 screws that were removed, locking the upper half of the tubing in place.



Remove the suspension arm from the packaging and remove the 2 screws that are in the end of the arm.



Remove screws
then re-insert
to lock sections
together



Connect the molex connections from the arm to the vertical tubing ensuring they match polarities. Once connected align the screw holes in both sections and insert the arm into the vertical tubing. Now re-insert the screws previously removed.



Warning, without the lighthead attached, this arm will spring upwards rapidly. Keep control of the arm at all times and avoid any obstructions in its path.

You will now need to attach the lighthead to the suspension arm. To connect the head you will need to loosen the grub screw points around the edge of the joint.



Warning, without the lighthead attached, this arm will spring upwards rapidly. Keep control of the arm at all times and avoid any obstructions in its path.

Pull the arm down to a workable height, someone will need to keep control of the arm whilst you connect the Molex connections and slot the lighthead onto the suspension arm. Fix the lighthead onto the end of the arm and ensure that one of the grub screws locates into the hole at the end, then tighten all the grub screws to secure the head in place.



Insert the power cable into the base of the light, then turn the power on at the base of the light and power the light on using the button located on the lighthead. Check that all lights illuminate.

Check the arm and head for smooth and correct movement. If the head is drifting, or if the movement of the arm is stiff, use a hex tool to adjust the tensions detailed in maintenance section of this manual. Your new Daray light is now ready for use.

To gain full support of our warranty please fill in the warranty details online at <http://www.daray.co.uk/docs/warranty.php>

NOTE: The mains power supply should meet IEC60245-1 requirements.

3.3 Ceiling Mounted Version



The ceiling structure must be capable of handling up to a 500kg load.

The procedures below are detailed to a high level however ***If in doubt please consult a qualified electrician.***

Minimum Room Requirements	The SL730 Series ceiling mounted light has a standard fixing height of 2.4m . The design works off a fixed plate system and has a large vertical motion.
Maximum Room Requirements	Please note, if the ceiling / fixing point of the light is above 2.5m then a customised ceiling mount will be required, (please contact Daray for more information). If a suspended ceiling is in the room, you will need to construct a platform down to the required fixing height.
Live Electric Circuitry	All personnel working around live circuitry should be qualified and following proper procedures
Heavy or Difficult fittings	Fitting the ceiling plate can be difficult and aspects of the fitting may require more than one person; this work should only be attempted by appropriate and competent personnel.
Existing Environmental Factors	When fitting, considerations have to be taken for existing services such as; fire alarms, vents, lights, etc. along with interior ceiling construction and any surrounding hazard.
Environmental Responsibility	Once our products are installed all packaging should be disposed of appropriately and recycled where appropriate and in accordance with local governing regulations. The normal life span of the SL730 series is up to ten years. We recommend the equipment should be discarded and recycled when reaching the end of its life.

These instructions are based on the assumption of a fresh fit into a room with no previous lighting structures. With installations onto sites with equipment already in place, we recommend that the previous lights' mounting plates be removed and the new ones fitted as if into a fresh fitting.

After concluding the structural stability of the ceiling structure it will be necessary to assess the construct and decide on the best course of action for installing the ceiling plate. There are various different methods for loading the plate onto the ceiling, below are various example methods that can be used.

3.3.1 Attachment methods and void suspension

The ceiling mount is split into 2 parts, the fixing plate and the ceiling plate. Please note, the recommended room height allowed for fixing requires the bottom of the ceiling plate to be no lower than 2.4m.

- **Bolted Directly into a structural slab and secured with chemical bonding**

This is our primary choice for mounting our lights to the ceiling structure, appropriate rawl bolts and chemical bonding should be used to secure the fitting.

- **Bolted to a Uni-strut Construct**

When using a uni-strut construct for mounting the ceiling plate, you should ensure that the uni-strut is cross braced to ensure it is secure and does not move.

- **Welded to structure**

The fixing plate is the component that would be welded to the structure; any welding must be assessed to be capable of handling a 500Kg load.

- **System anchored to composite deck**

A customised composite deck could be used either in conjunction with or as a replacement to the fixing plate. Any substitute parts must meet safety standards and be assessed by a competent structural assessor. The composite deck is designed to spread the weight of the light over an enlarged area.

- **System bolted to structure**

This system requires prior planning during the base construction phase of the ceiling above, bolts should be fed through the metal ceiling prior to the concrete base being poured. These bolts should be based on the fixing plate layout in section 3.5.1

3.3.2 Lighting configuration

Dependant on the choice of attachment method, and whether the light is being attached in a void or directly onto an open surface ceiling; custom mounting aspects may be required.

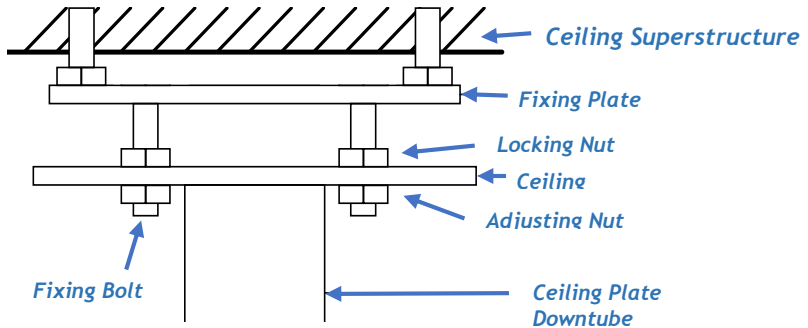
Daray's standard mounting recommendation is to have the fixing plate directly bolted into the structure of an open surface ceiling when possible.

Ultimately the mounting method used is the responsibility of the project engineer or fitter. This includes the specification of attachment hardware, lateral bracing and the suitability of the surface to be fixed to.

3.3.3 Installing the Ceiling plate

The location of the light should be decided by the end user / project manager or through schematical drawings.

Once the location has been decided it will be necessary to first mark the location of the fixing/ceiling plate.

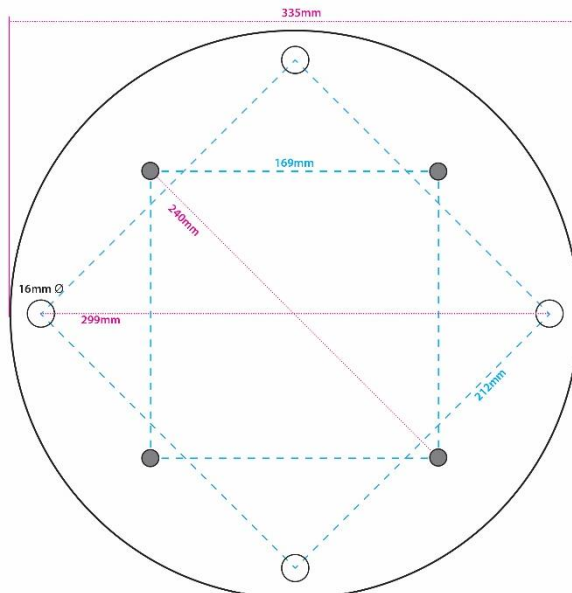


As shown, fitting your ceiling plate requires bolts be inserted directly into the ceiling super structure. The ceiling plate can however be fitted to an optional fixing plate instead. The fixing plate would then attach to the ceiling super structure instead of the ceiling plate.

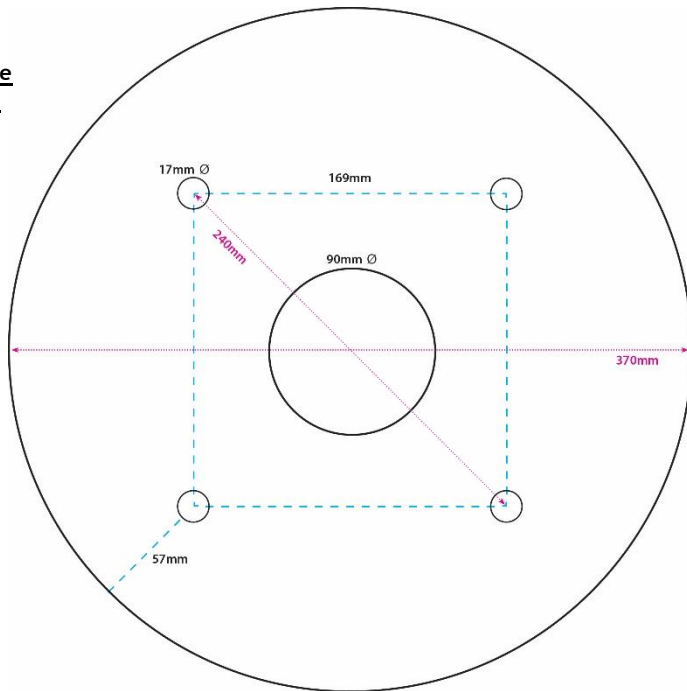
Whichever fixing method used; it is highly advisable that the plate being fixed to the ceiling, is secured with a minimum of 4 bolting points to ensure a complete and sturdy fit.

Once the fixing plate is fitted and secured, you will need to attach a locking nut to each bolt protruding from the fixing plate before attaching the ceiling plate. Now fit the ceiling plate to the fixing plate by sliding the fixing points onto the bolts from the fixing plate and attach a 2nd nut to the bolts.

Fixing plate Dimensions



Ceiling plate
Dimensions



Once the ceiling plate has been fitted, it will be necessary to ensure that it is balanced on the vertical plane. This can be achieved by adjusting the 2nd level of nuts (the adjusting nut). Once this adjustment has been done tighten the 1st level of nuts down to the ceiling plate to lock the plate into position.

After any adjustment it will be necessary to check that all fixings are still sound and that locking nuts are tight.

3.3.4 Wiring and transformer layout



Before working on electrical connections please make sure that the power to the light is switched off at the source and secured so that it will not be turned on during your work.



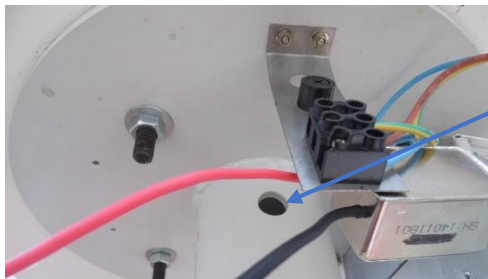
The mains power supply should meet IEC60245-1 requirements and should be fitted with a fixed master switch. (The switch should meet IEC328 requirements and the directional movement parts of the switch should meet IEC447 requirements and the symbols should meet IEC60601-1 requirements.)

Ideally the cable used to power the light should be of a 1.5mm twin and earth type. Daray recommends that the power supplied uses an earthed switched fused spur, protected with a 3 amp fuse.

The wiring should be as follows:		
Live terminal	→	brown wire.
Neutral terminal	→	blue wire.
Earth terminal	→	green/yellow wire.

The above wiring is for modern wiring applications (post 2000). On completion of the wiring, the next stage will be attaching the suspension arms to the ceiling mount.

Before any cabling can be done you will need to feed the mains connection down through the ceiling plate and through a hole near the top of the mount, located behind the central wire terminal (indicated on the image below). You will also need to feed the low voltage cables from the arm system through this hole. This will need to be done while the arm(s) are being mounted at the same time. Using some form of guidance wire secured to the cables may make this easier to install correctly.



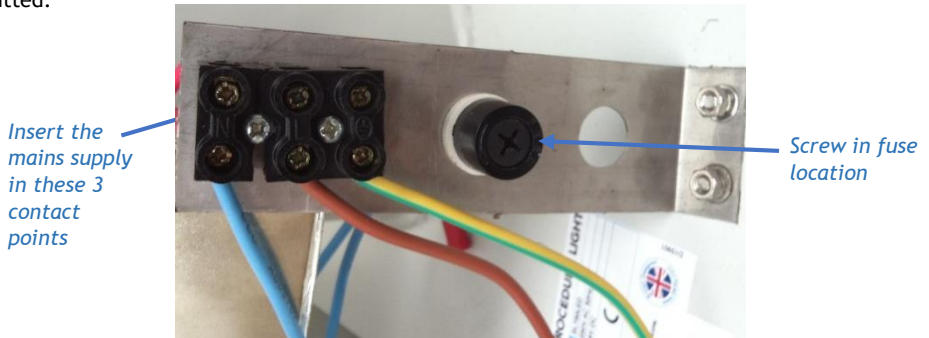
Cables need to be fed through this hole



Pre-installed 24V Transformer

The cables leading to the transformer (from the central terminal block) are already attached. This central terminal block is the connection point for your mains supply to the transformer used to power the lighthead. **You will not need to conduct any electrical wiring on the transformer.**

The mains connection to the central terminal block is the only connection that you will need to wire in. this will require the use of a small flat blade screw driver. All other connections in the light are low voltage DC connections that will be connected using the molex connectors already fitted.



The mains supply lead will need to be wired into the central terminal block as shown above.

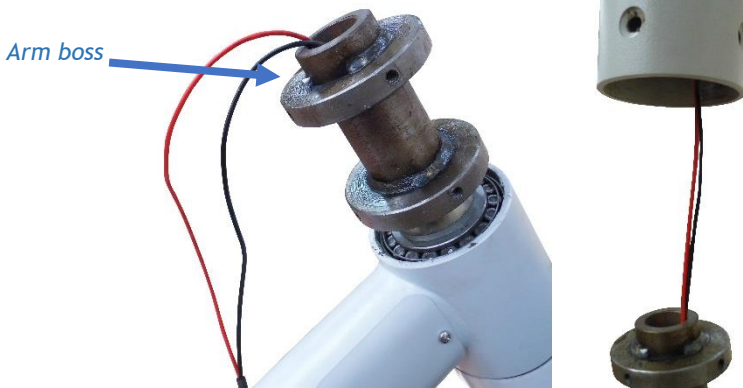
3.3.5 Primary rotation arm installation

The Ceiling plate has an integrated downtube system which cannot be modified after installation. If you require a customised length of downtube please contact daray.

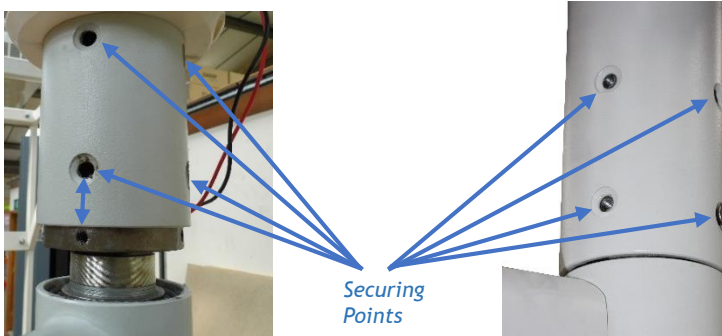
The primary rotation arm is fitted to a 360 Degree arm boss system; the arm boss is the section that is inserted into the downtube and secured in place with 8 locking screws. Before attaching the arm into the downtube; you should ensure the ceiling mount is absolutely true on the vertical plane.

This installation will require 2 or more people to fit, when inserting the arm boss into the downtube you will need to feed the cables from the arms up through a hole located on the downtube at the same time as the arm is attached.



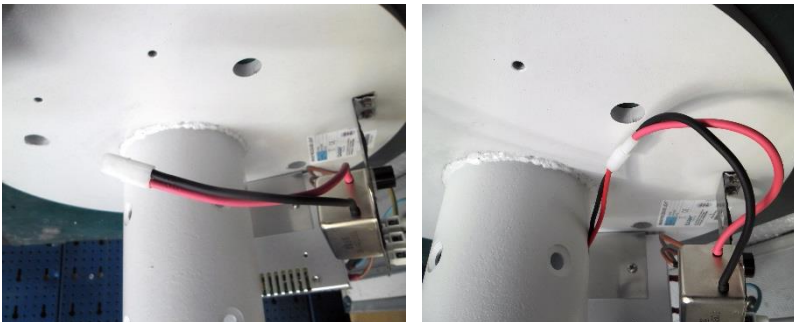


To lock the arms in place you will need to secure them using 8 screws through the ceiling mount downtube.



Note: the 8 securing points paired around the tube, when inserting the arm boss we advise you line up the screw points on the boss with the screw holes on the downtube.

Once secured you will need to connect the cables from the arm boss to the molex connections that come off the transformer.

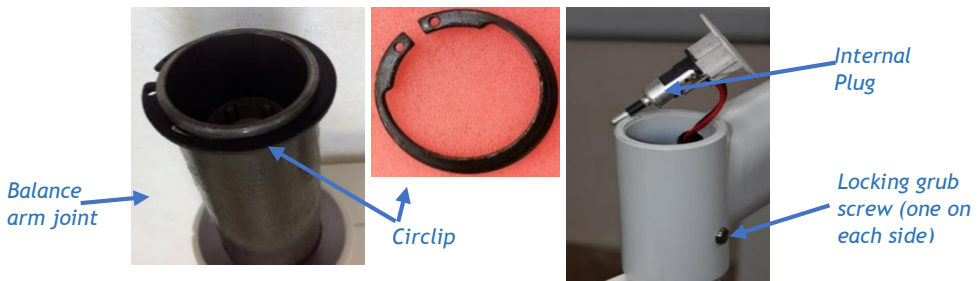


Warning, please observe the Cable Polarities and ensure that they match, incorrectly wiring the device will cause damage to the system

Before progressing onto fixing any other arms, ensure that the rotation arm is attached securely.

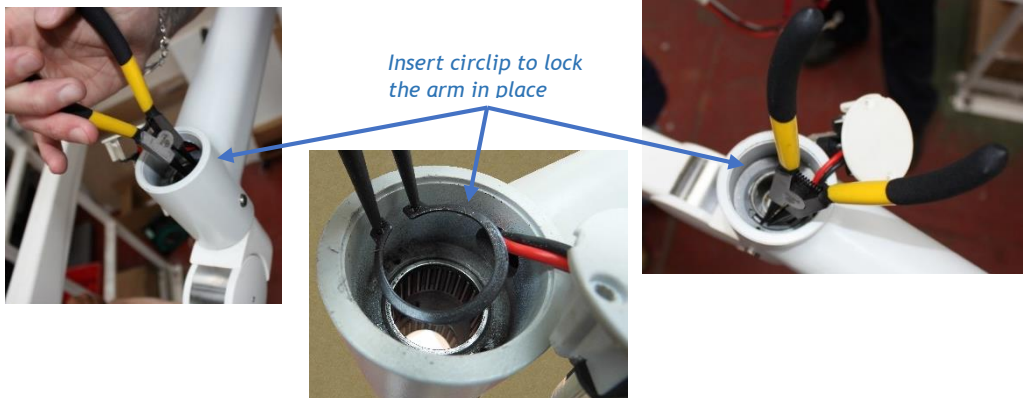
3.3.6 Suspension arm Installation

To attach the suspension arm to the rotation arm you will first need to remove the internal plug. To remove the plug, undo the screws on the top of the arm joint and the plug should easily dislodge. Before you insert the suspension arm, remove the circlip from its spigot and make sure that the locking grub screws on the side of the rotation arm are loose.



Warning: If the circlip securing ring is overstretched or improperly mounted there is a risk of the entire system or components of the lighting system falling from the device.

Push the suspension arm's spigot into the rotation arm and re-insert the circlip locking ring (from the top) using the circlip pliers included to fit it.



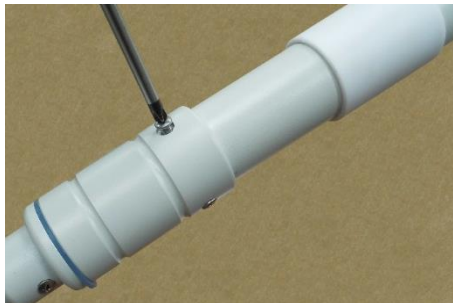
Once the locking ring is in place, insert the internal plug and secure it back in place.

The next section to be fitted is the second half of the suspension arm, the hook section. To connect this arm section you will need to remove the 3 screws shown below, then connect the molex connections (these should match polarities) and slot the 'hook' section onto the first.



Warning, Please observe the Cable Polarities and ensure that they match, incorrectly wiring the device will cause damage to the system

Line up the row of grub screws on the joint with the bottom of the arm (facing the floor), secure the arm together with the screws previously removed.



Warning, without the lighthouse attached, the suspension arm will spring upwards rapidly. Keep control of the arm at all times and avoid any obstructions in its path.

You will now need to attach the lighthead to the suspension arm. To connect the head you will need to loosen the grub screw points around the edge of the joint.



Warning, without the lighthead attached, the suspension arm will spring upwards rapidly. Keep control of the arm at all times and avoid any obstructions in its path.

Pull the arm down to a workable height (someone will need to keep control of the arm whilst you connect the Molex connections and slot the lighthead onto the suspension arm. Fix the lighthead onto the end of the arm and ensure that one of the grub screws locates into the hole at the end, then tighten all the grub screws to secure the head in place.



Supply power to the mains connection and power the light on using the button located on the lighthead. Check that all lights illuminate.

Check the arm and head for smooth and correct movement. If the head is drifting, or if the movement of the arm is stiff, use a hex tool to adjust the tensions detailed in maintenance section of this manual. Your new Daray light is now ready for use.

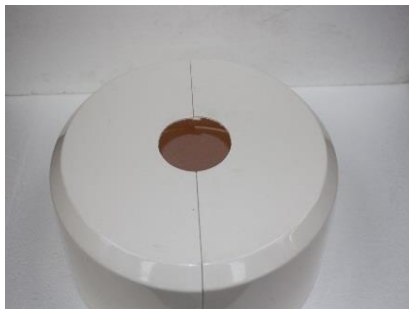
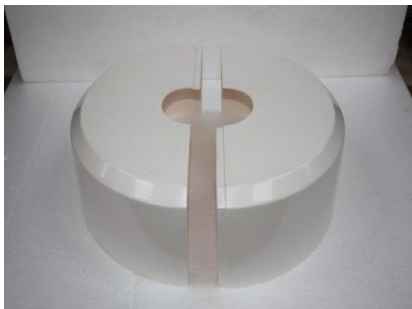
To gain full support of our warranty please fill in the warranty details online at <http://www.daray.co.uk/docs/warranty.php>

NOTE: The mains power supply should meet IEC60245-1 requirements.

3.3.7 Attaching the Ceiling Cover

The last aspect of fitting is to attach the ceiling mount cover.

The primary cover is split into 2 halves. You will need to place the two halves over the ceiling mount and secure them together using the screws provided.



Once the two halves of the primary cover are connected, work the cover over the cabling and then attach the secondary securing ring around the downtube to lock the ceiling mount cover in place.



If the head is drifting, or if the movement of the arm is stiff, use a hex tool as indicated in section 4.6 of this manual to tighten the arms.

The light can now be tested by applying power and pressing the power button on the head. Check the arm and head for smooth and correct movement. Your new Daray light is now ready for use.

To gain full support of our warranty please fill in the warranty details online at <http://www.daray.co.uk/docs/warranty.php>

NOTE: The mains power supply should meet IEC60245-1 requirements.

3.4 Wall Mounted Version



The wall structure must be load bearing.

Power Supply	<p>The SL730 wall mounted edition uses an IEC power connection located on the left side of the power box.</p> <p>Please take the length of the supplied IEC in consideration when deciding on the location and placement of your unit.</p>
Heavy or Difficult fittings	<p>Fitting the mounting plate can be difficult and aspects of the fitting may require more than one person; this work should only be attempted by appropriate and competent personnel.</p>
Existing Environmental Factors	<p>When fitting, considerations have to be taken for existing services such as; cabinets, vents, light switches, etc. along with interior wall construction and any surrounding hazard.</p>
Environmental Responsibility	<p>Once our products are installed all packaging should be disposed of and recycled appropriately and in accordance with local governing regulations.</p> <p>The normal life span of the SL730 series is up to ten years. We recommend the equipment should be discarded and recycled when reaching the end of its life.</p>

These instructions are based on the assumption of a fresh fit into a room with no previous lighting structures. With installations onto sites with equipment already in place, we recommend that the previous lights' mounting plates be removed and the new ones fitted as if into a fresh fitting.

After concluding the structural stability of the wall structure it will be necessary to assess the construct and decide on the best course of action for installing the wall plate.

3.4.1 Attachment methods

The wall mount system is split into 3 parts, the fixing plate and primary arm boss, the suspension arm and the lighthead. Please note, the recommended installation height is with the bottom of the suspension arm's rigid section being no lower than 1.9m.

Note: The wall mounting plate should be installed on a load bearing wall.

3.4.2 Lighting configuration

Daray's standard mounting recommendation is to have the wall plate directly bolted into the structure of an open surface when possible.

Ultimately the mounting method used is the responsibility of the project engineer or fitter. This includes the specification of attachment hardware, lateral bracing and the suitability of the surface to be fixed to.

3.4.3 Installing the wall plate



To install the wall plate you may need more than 1 person. Align the mount to the wall and mark your fixing points. Ensure the light is completely true on both the horizontal and vertical planes.

It is essential that this mount is true on both planes as otherwise it may cause the arms to swing uncontrolled.

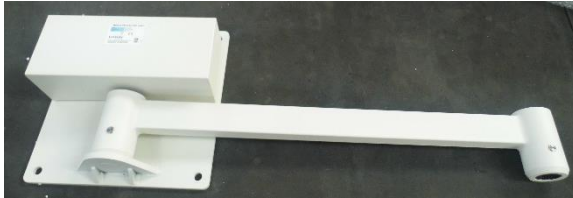
With the fixing bolts secured, place a nut onto each of the fixings, then mount the plate onto the wall. Place a final nut onto the fixing bolt to lock the design in place.

3.4.4 Wiring and transformer layout

The SL730 Wall uses an enclosed transformer system with an IEC point located on the side of the light, with system fully installed you will not have to perform any electrical wiring in relation to the transformer system.

3.4.5 Primary rotation arm installation

This wall system will have the primary rotation pre-installed into the wall plate / arm boss system and will not require any additional installation.



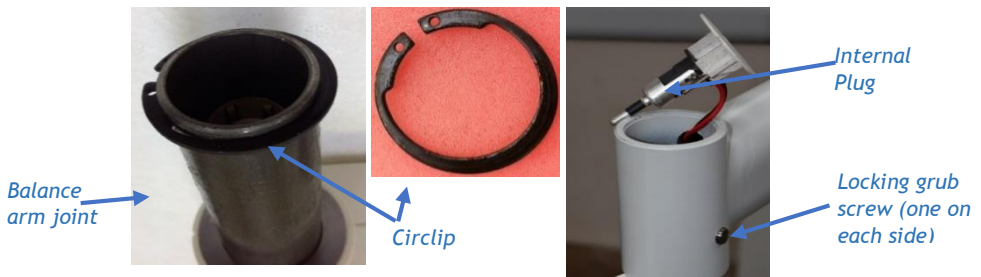
3.4.6 Suspension arm Installation



To attach the suspension arm to the rotation arm you will first need to remove the internal plug from the rotation arm.



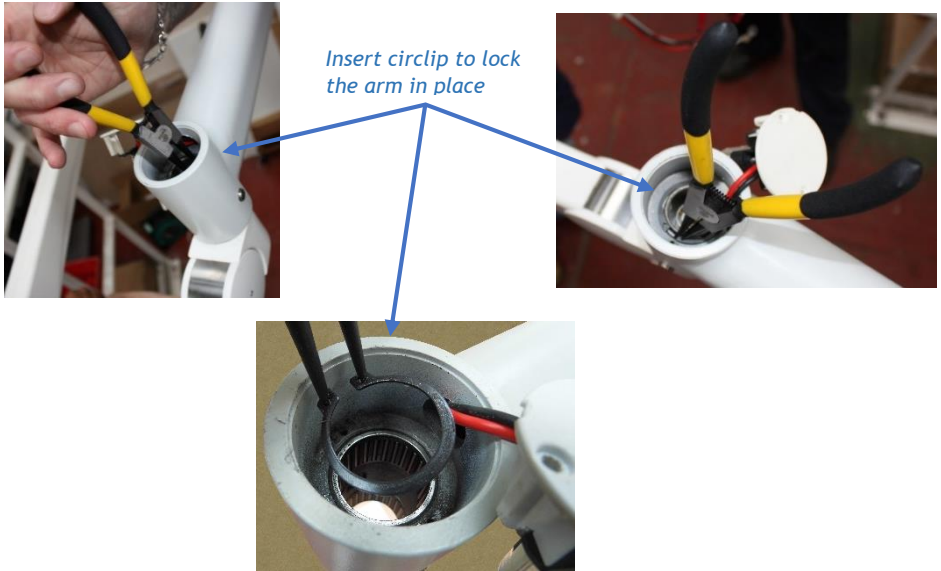
To remove the plug, undo the screws on the top of the rotation arm joint and the plug will easily dislodge. Before you insert the suspension arm, remove the circlip from the suspension arm spigot and make sure that the locking grub screws on the side of the rotation arm are loose.





Warning: If the circlip securing ring is overstretched or improperly mounted there is a risk of the entire system or components of the lighting system falling from the device.

Push the suspension arm's spigot into the rotation arm and re-insert the circlip locking ring (from the top) using the circlip pliers included to fit it.



Once the locking ring is in place, insert the internal plug and secure it back in place.

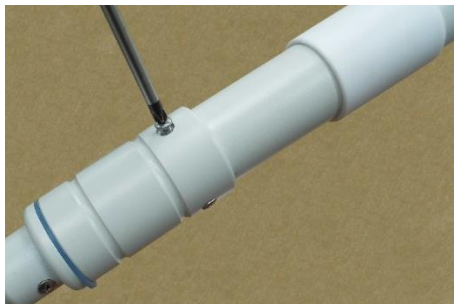
3.4.7 Lighthead Installation

The next section to be fitted is the second half of the suspension arm, the hook section. To connect this arm section you will need to remove the 3 screws shown below, then connect the molex connections (these should match polarities) and slot the 'hook' section onto the first.



Warning, Please observe the Cable Polarities and ensure that they match, incorrectly wiring the device will cause damage to the system

Line up the row of grub screws on the joint with the bottom of the arm (facing the floor), secure the arm together with the screws previously removed.



Warning, without the lighthead attached, the suspension arm will spring upwards rapidly. Keep control of the arm at all times and avoid any obstructions in its path.

You will now need to attach the lighthead to the suspension arm. To connect the head you will need to loosen the grub screw points around the edge of the joint.



Warning, without the lighthead attached, the suspension arm will spring upwards rapidly. Keep control of the arm at all times and avoid any obstructions in its path.

Pull the arm down to a workable height (someone will need to keep control of the arm whilst you connect the Molex connections and slot the lighthead onto the suspension arm. Fix the lighthead onto the end of the arm and ensure that one of the grub screws locates into the hole at the end, then tighten all the grub screws to secure the head in place.



Insert the IEC plug and supply power to the light, check that all the light modules are illuminated.

Check the arm and head for smooth and correct movement. If the head is drifting, or if the movement of the arm is stiff, use a hex tool to adjust the tensions detailed in maintenance section of this manual. Your new Daray light is now ready for use.

To gain full support of our warranty please fill in the warranty details online at <http://www.daray.co.uk/docs/warranty.php>

NOTE: The mains power supply should meet IEC60245-1 requirements.

4. Maintenance

The proposed maintenance is only a suggestion. Depending on the use of the product and the operating environment, this may need to be revised more often. Daray would strongly recommend against “quick fixes” with tape, etc. If you cannot resolve a problem then please contact our helpline on **0800 878 9864** or email **support@daray.co.uk**

4.1 Maintenance schedule

Weekly checks should include:-	Range of movement testing, it should be light and easy to move throughout the range
	No visible signs of excessive wear.
Monthly checks to include:-	Check the downtube and thumb screws for wear and report as necessary
Six monthly checks to include:-	Check all electrical connections are sound and that there is no visible cable wear.
	All fixings to be checked and be of sound construction.
	Check optional battery back-ups for deformities and overheating

4.2 Safety Precautions

- For all cleaning work, power off the equipment and where possible completely power off any mains connection, only minimal cleaning fluids should be used.
- Please do not look directly into the light source when illuminated.
- If the equipment is dented or scratched this should not impact the usability of our lights however we advise that you do not attempt to cover over any damage as this will impact upon the effectiveness of any cleaning you do. Simply use an alcohol based cleaning spray when cleaning and pay special attention to any damaged areas.



(When applicable) If there is damage to the power cable or if exposed wire is visible
DO NOT USE



The SL730 is to be disassembled and maintained only by a qualified technician.

4.3 Cleaning



Do not use strong chemical cleaning agents or any abrasive materials to clean the light. The light is not waterproof so the use of excessive amounts of cleaning fluids could cause serious harm or injury.

We advise that the light should only be dusted with a soft flannel cloth, and the front cover gently cleaned with an alcohol-based liquid (aerosol) spray, and wiped dry.

4.4 Fuses and their replacement

The SL730 series mobile mounted light uses a transformer to control the power to the device. On the mobile mounted version there are 2 Qty. user replaceable fuses located at the base of the light next to the IEC plug socket, these are both 3 amp fuses.



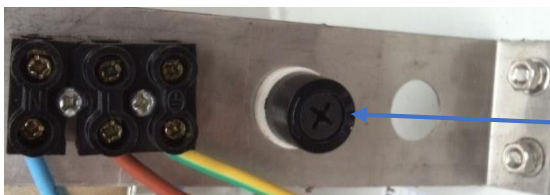
*Screw in fuse
location*

For any internal transformer burnouts please contact Daray.

The ceiling mounted SL730 series uses a transformer to control the power to the device. The system itself should be fitted into the mains via an earthed, switched fused spur.

We recommend a minimum supply fuse of 3 amps however this will be affected and dependant on individual circumstances such as power systems used per country.

The ceiling mounted version has 1 user replaceable fuse which is located on the ceiling plate next to the central terminal block as depicted below and in section 3.3.2 of this manual. For any internal transformer burnouts please contact Daray.



*Screw in fuse
location*

The Wall mounted edition uses 2 Qty. 3 Amp Fast blow fuses located above the IEC inlet on the main wall mount transformer box.



*Screw in fuse
location*

4.5 Replacing the LED Bulbs

The LED bulbs in the SL700 series are high quality and should not need to be replaced in the lifetime of the light, however if any bulbs need to be replaced, please consult a qualified electrician or contact a daray authorised service centre.

4.6 Adjustments

Rotation arm (ceiling version)

If the Rotation arm's start to drift then the ceiling mount system may have become uneven; to correct this issue you will need to adjust the relevant nuts on the ceiling mount, these are indicated in section 3.3.1 of the installation section in this user manual. The suspension arm can also have its tension adjusted by using a hex tool in the grub screw located on the opposite side of the arm boss to the main arm section.



Suspension arm (all versions)

The suspension arms can be adjusted in several ways however its upward and downward movement is controlled with internal adjusters accessed through a sliding cover halfway down the arm. Slide the white plastic cover to the side to reveal two cut-out sections. Insert a hex tool into one of the holes in the silver section and turn to the side to adjust the tension. The horizontal rotation of the suspension arm motion is controlled by flat blade grub screws located at the connection point between the rotation arm and the suspension arm.

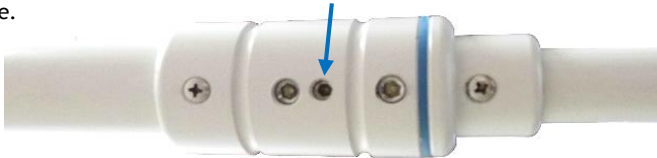


Rotation arm (Wall version)

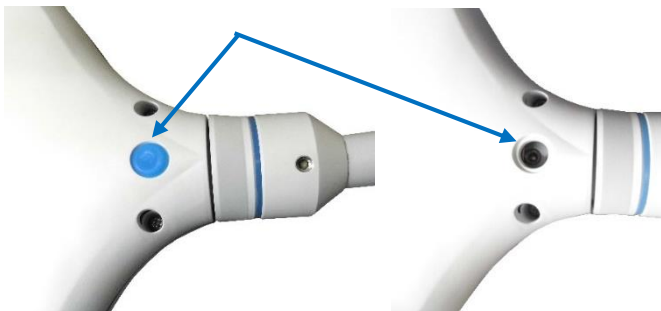
If the Rotation arm starts to drift then the wall plate may have become uneven; to correct this issue you will need to adjust the relevant nuts on the mount fixings to balance the rotation arm. The rotation arm can also have its tension adjusted by using a flat blade tool in the grub screws located on each side of the arm boss.

**Lighthouse arm (all versions)**

The side turning movement of the lighthouse arm is controlled by the central tension screw as indicated here.

**Lighthouse (all versions)**

The tilting / forward and backward movement of the lighthouse itself can be tightened by using the tension screw located underneath a blue rubber bung at the rear base of the light as shown below.



Warning, without the lighthouse attached, the suspension arm will spring upwards rapidly. Keep control of the arm at all times and avoid any obstructions in its path.

Once all your required adjustments are complete, please check for correct movement. You should be able to place the light at its highest and lowest points with little to no drift/movement in the head once placed. We would recommend the lighthouse arm and head movements should not be overly tightened so they are stiff, and should not be overly loose which would cause drift.

4.6.1 Detaching Parts

De-construction of the lights should be done following a reverse order of the instructions in section 3.



Warning, without the lighthouse attached, the suspension arm will spring upwards rapidly. Keep control of the arm at all times and avoid any obstructions in its path.



The SL730 is a completely enclosed lighthouse as such, the head should not be opened and is only serviceable by a Daray Authorised service centre.

For any issues requiring internal service work on the SL730 please contact daray, as unauthorised work will **invalidate the warranty**.

5. Troubleshooting Guide

Problem	Possible Cause	Corrective Actions
No light output	Power Supply	Wall & Mobile Version - Check the plug top adapter is plugged in and switched on at the power socket and the base of the light. Ceiling Version - Check the power is on at your power source control point (switched fused spur) and that the transformer is producing power (this will require the use of a voltmeter to confirm a measurement).
	On/Off Button	Press the button on the side of the light to check if the light will power on (if not refer to power supply actions).
	Fuses	Visually check fuses then check continuity with meter
	Cables	Check the visible wiring and make sure the DC connectors between the light and the downtube / PSU are fully connected
Poor Light output	Power Button	Please check the variable intensity is not set to its minimum.
	Voltage in	Verify that the correct mains voltage and correct transformer is being used
	Voltage out	Verify correct secondary voltage at the end of the suspension arm
Light patch not focused	Light head	In the unlikely event that this happens, please contact Daray
Arm drift sideways	Loosened screw	If a screw has worked loose please check all grub screws and follow the tension adjustment procedure detailed in section 4.6.
	Ceiling Plate not aligned	If the ceiling plate is not true or if the locking nuts have not been tightened; this may cause arm drift that cannot be controlled through the grub screw tension points. Please check the alignment of the plate and locking nuts, adjust as necessary.
Stiff Head movement or uncontrolled drift	Light head	Please check the grub screw connections as detailed in section 4.6.

6. Warranty Information

6.1 Returns Policy



IMPORTANT!

Please fill out your warranty registration online at
www.daray.co.uk/warranty or contact Daray by phone (0800 878 9864)
or email support@daray.co.uk

DARAY's standard warranty is 12 months. However, depending on the product purchased this period may be extended to 3 or 5 years* free of charge by completing and submitting the warranty registration. For the specific warranty period for this product, please refer to the warranty symbol in the upper right of this page.

Year 1:	Warranty includes parts and labour	*UK only
	(Return to Base)	
Year 2-3:	Parts only	

We want you to be completely satisfied with your purchase. If you need to return goods purchased from DARAY Ltd, please read the following information carefully.

The DARAY Ltd returns policy provides guidance on when you can return goods we have supplied, and what you can expect from us once you do. To see our detailed returns policy and procedure visit

www.daray.co.uk/returns

TYPE OF RETURN	REMEDY
DAMAGED GOODS Goods which are physically damaged on delivery	We must be notified within 24 hours of receipt.
Dead On Arrival (DOA) Goods which do not work	Goods which do not work on arrival or develop a fault within 28 days, we will advance replace the item.
GOODS DEVELOPING A FAULT Goods which have developed a fault within the warranty period.	If the fault develops after 28 days, but within the warranty period, we will initiate the returns procedure.
NON WARRANTY Goods which have developed a fault outside the warranty period.	If a fault develops outside the warranty period, we will initiate the returns procedure charges may be applicable.
OTHER Any situation which is not covered by any of the above.	We will always try to help, but we cannot normally offer a refund.

For additional clarification, please refer to our terms and conditions at www.daray.co.uk/terms.

In a small number of cases, we may determine that a replacement would not work any better than the original product we supplied. In such cases we will only offer a refund rather than a replacement for qualifying returns.

Replacement bulbs and spare parts ordered on our website or from supplied part codes are not eligible for credit. We will accept returns and exchange for the correct item.

If your purchase an item incorrectly you can return it within 14 days and it can be exchanged for another product of equal or higher value, excluding transportation charges incurred. Goods and packaging must be returned in their original condition. Under no circumstances will goods be accepted for return if they are damaged, have been subjected to improper handling or abuse or have been used.

If you send us goods that do not qualify for return, you will invalidate your claim to any refund, and you will be obliged to compensate DARAY Ltd for the cost of return postage and any other reasonable costs incurred processing the goods. Your statutory rights are not affected.

6.2 Warranty Details

TERMS AND CONDITIONS OF WARRANTY

1. To qualify for this warranty you must register on www.daray.co.uk or return to Daray Ltd (Daray) the duly completed warranty-registration form accompanying the product.
2. Daray warrants this product (excluding lamp) against faulty material and workmanship during the period of the warranty. The period of warranty is the period stated on your warranty card and commences on the date of purchase of the product. In the event that the product is not in good working order Daray will provide, during the warranty period, a free repair service within the United Kingdom. The warranty is subject to proof of purchase being provided; therefore, you should retain your original receipt.
 - 2.1 The repair service consists of the provision of spare parts and/or replacement products (at Daray's discretion) which will be provided on an exchange basis and will either be new, equivalent to new or reconditioned. All replaced spare parts and products shall become the property of Daray.
 - 2.2 Daray's only obligation under this warranty is the provision of the service as set out above.
 - 2.3 All products are returned to Daray at the customer's cost and risk. Products to be returned should be adequately packed. For the address to send returns to please visit www.daray.co.uk
3. Daray's arrangements for providing service provided under this warranty may include the use of sub-contractors.
4. This warranty does not cover damage or defects in the Product caused by or resulting from:
 - Wilful neglect or negligence by anyone other than Daray;
 - Improper use, storage or handling of the product;
 - Use of non-Daray approved parts (such as replacement lamps) not compatible with the Product;
 - Fire, accident or disaster;
 - Use of non-Daray modifications other than in accordance with Daray's instructions;Attachment of fittings and accessories not approved by Daray;
Repairs, modifications carried out by service personnel not approved by Daray;
 - Damage caused by chemical corrosion from cleaning agents not approved by Daray.
 - Failure to use or install the product in accordance with the manufacturer's instructions.
5. Nothing in this warranty shall have the effect of restricting or excluding the liability of Daray in respect of:
 - a) Death and personal injury caused by the negligence of Daray, or for fraud;
 - b) Under the *Consumer Protection Act 1987* to a person who has suffered damage caused by a defective product or to a dependant or relative of such a person;
 - c) Direct damage to your property caused by the proven negligence of Daray.
6. This agreement does not give any rights other than those expressly set out above and in particular, Daray will not be responsible for any loss of income, profits or contracts or any direct or indirect consequential loss, damage caused to or suffered by the purchaser as a direct result of this agreement.
7. This warranty is offered (subject to these terms and conditions) in addition to, and does not affect your statutory rights.
8. Daray may disclose your details and other personal information to companies within the Daray group including any subsidiary company or sub-contractor of Daray for the purposes of performing our obligations hereunder.
9. You must not resell outside the UK any products supplied by Daray and covered by the *Export of Goods (Control) Order 1992* (or any law that replaces it) without obtaining all necessary licences. You also agree not to sell the product in the UK if you know or think that the person buying the product intends to export it without getting the necessary licences. You agree to impose similar conditions to these on anyone you sell the product to.
10. These conditions shall in all respect be governed and construed in accordance with English law and the exclusive jurisdiction of the English courts.

Product:

Serial No:

