

DARAY[®]

HEALTHCARE PRODUCTS



X220

INSTALLATION AND OPERATING MANUAL FOR WALL AND CEILING MOUNTED X220 MODELS

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DARAY[®]

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1. GENERAL DESCRIPTION

Daray's X220 is a highly cost-effective medical examination light which mounts the light head onto a rigid-sprung arm. Wall and ceiling-mount versions are available, identified as the X220W and X220C, respectively. In both versions, a transformer is housed in the arm to power the light head from a safe low voltage. The arm swivels on a fitting at the base of the transformer housing which mates with the ceiling or wall mounting, as appropriate.

The X220 features a dual-intensity output selected via a neat switch conveniently located on the head mounting. Like all versions of the X220, the beam is cool and the head steering handle is coated with BioProtect™, Daray's anti-microbial protection.

A filter is available as an option to take the colour of the light output up to daylight level to make colour tones look natural.

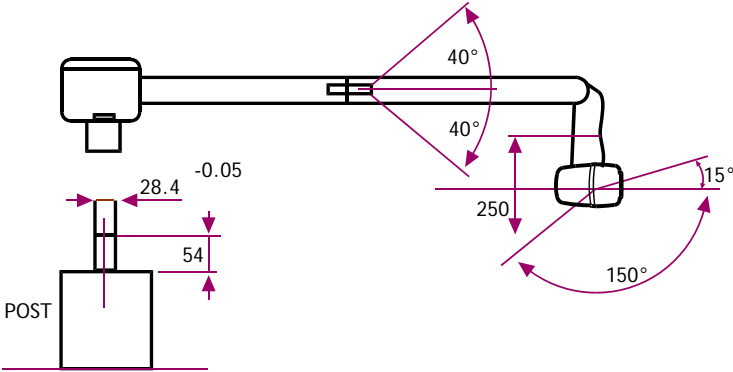
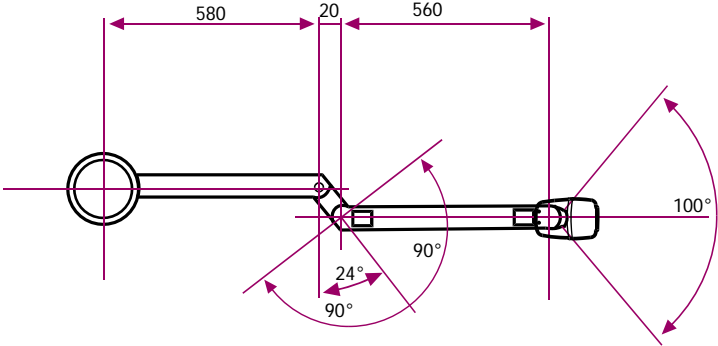
CAUTION: This product is should only be installed by professionally trained electro-mechanical engineers.

2. SPECIFICATION

Output intensity	High setting 54,000 lux at 0.5m. Low setting 36.000 lux
Colour temperature	3,600 Kelvin or 4,200 with daylight filter option
Patch size at 1m	125mm
Input voltage	230V, 50 Hz mains, class 1 (earthed)
Lamp	Tungsten Halogen 12V-45W (DRK4046)
Arm reach	1,140mm
Colour	RAL 9016 white

The light's product-identification and serial-number labels are located on the transformer housing.

Dimensions



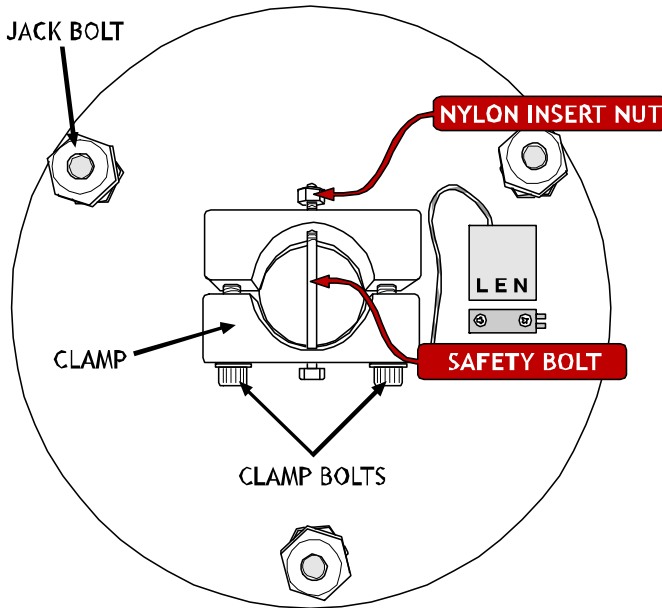
3. INSTALLATION

CAUTION: This product is should only be installed by professionally trained electro-mechanical engineers.

CAUTION: This product must be earthed.

Ceiling plate preparation

Remove the clamp bolts, safety bolt/nylon insert nut and the clamp. Keep these parts in a safe place for use later.



Fix the plate to the ceiling with bolts, screws or studs and nuts through the centre of each jack bolt. Do not fully tighten the fasteners at this point.

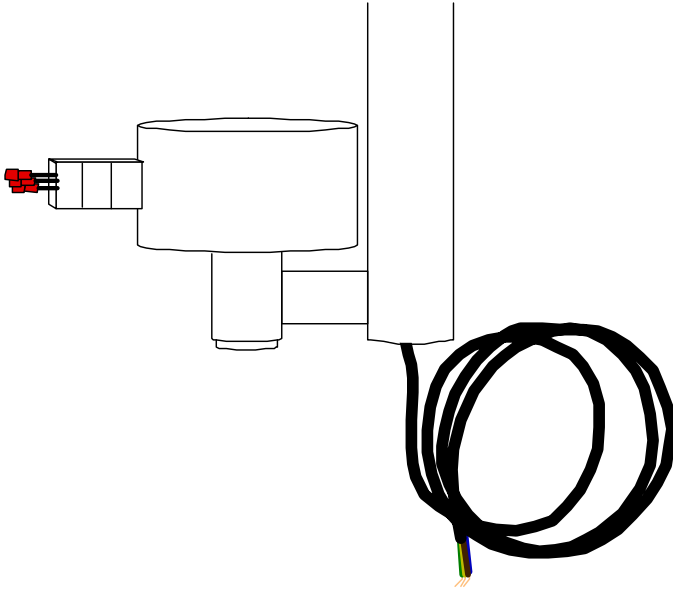
Note: If necessary, fit spacers above the plate to allow the mains cable to pass through.

The jack bolts are used to level the ceiling plate and down-tube.

Note: The nuts thread-locked to the upper end of the 3 jack bolts act as pressure pads. These pressure pads must be seated firmly against the mounting surface.

Fitting the down-tube

A 1 metre length of down-tube is included (with the transformer housing fitted), and must be securely fitted in accordance with these instructions.



The down-tube should be cut to size on-site to suit the particular ceiling height.

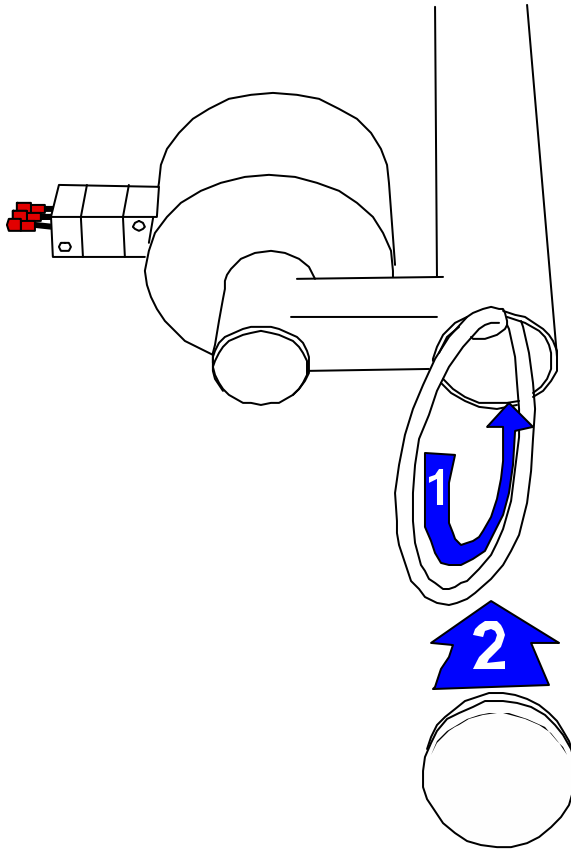
Note: When installed the down-tube must leave clearance above the ceiling mount plate to prevent the cable being trapped.

Cut the down tube, as necessary, so that the arm will be at the required height above the floor.

De-burr as necessary.

Loosely refit the clamp and clamp bolts. Fit the down-tube in the clamp, rotate it such that the arc of the arm movement covers the required area and tighten the clamp bolts to firmly hold it in place. Drill a 6mm hole completely through the tube via the guide holes in the clamp and fit the safety bolt and nylon insert lock nut supplied.

Drill a 6mm hole completely through the tube via the guide holes in the clamp and fit the safety bolt and nylon insert lock nut supplied.



Uncoil and feed the supply cable up the tube (1) and fit the supplied bung in the bottom of the down-tube (2).

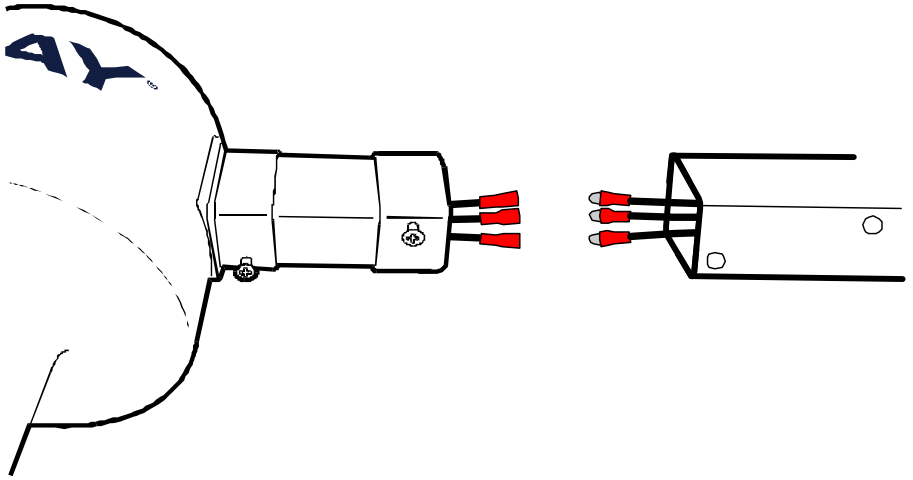
NOTE: TO ENSURE THE USER'S SAFETY, THE SAFETY BOLT AND NYLON INSERT LOCK NUT MUST BE FITTED PROPERLY

Tighten both clamp screws fully and evenly until the tube is firmly clamped.

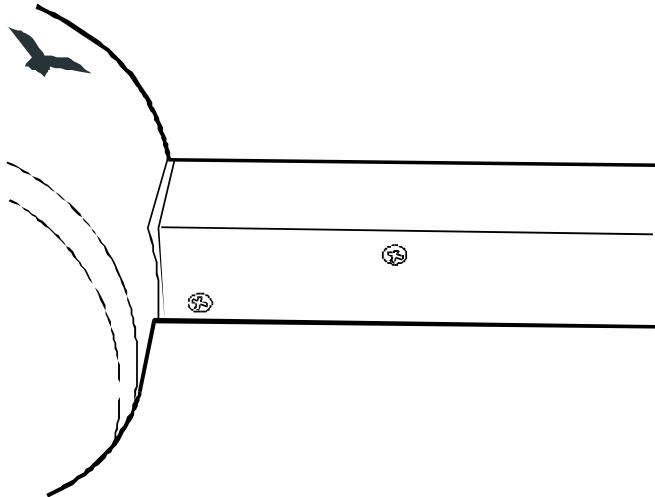
Adjust the 3 large bolts such that the down-tube is absolutely vertical. Tighten the fixing bolts or screws to firmly clamp the jack bolts tight against the joist, tighten the thin locknuts and re-check that the down tube remains vertical, and the mounting plate has no movement. If necessary, repeat the adjustment.

Fitting the arm

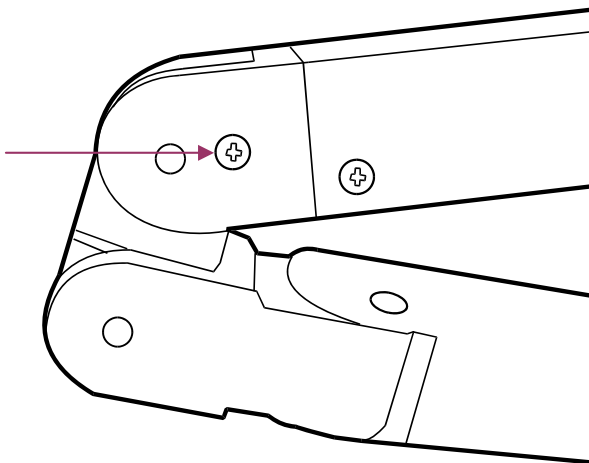
Remove the 2 'parked' screws from the transformer housing. While supporting the arm, connect the transformer cables to the arm cables, matching the colours.



Fit the transformer housing to the arm, making sure not to pinch the cables, and refit and tighten the 2 screws.



One half of the arm swivel can be locked in 2 positions by a removable screw fitted underneath the arm. Remove the screw to free the joint.



Rebalance the jib arm, as necessary (see section 5).
Provide a mains electrical supply with an earth connection to the ceiling-mount terminal block. This supply should be fed via a switched, fused spur, so it can be isolated.

Turn on the mains isolator and check that the light functions correctly.

3.2 Wall Mount.

CAUTION: this product must be earthed.

Determine where the wall-mount bracket should be fitted to allow the light head to be positioned correctly above the couch.

Remove the circlip from the wall mount spigot and keep safe. Remove the transformer housing cover. Remove the screws holding the transformer in place.

Lightly grease the wall mount spigot.

Place the transformer housing on the wall mount spigot, feeding the incoming supply cable into the transformer housing.

Fit the circlip to the spigot to secure the transformer housing allowing it to rotate.

Refit the transformer making sure to use one of the transformer's screw fixings to connect the incoming earth connector.

Connect the transformer connector to the incoming supply cable connector.

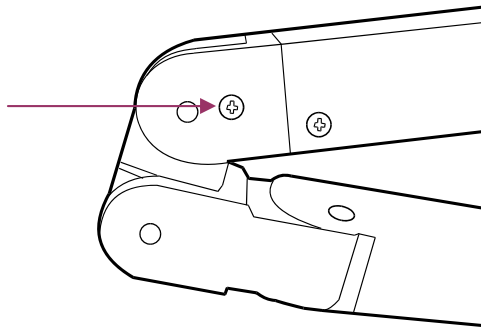
Replace the transformer housing cover

Provide a mains electrical supply with an earth connection adjacent to the wall-mount bracket position. This supply should be fed via a switched, fused spur connection unit, so it can be isolated. Alternatively, the light may be plugged into a 13A socket by fitting a plug to the flex.

CAUTION: This is a 2-person job! Fit the wall-mount bracket to the wall, ensuring it is rigidly mounted and level.

One half of the arm swivel can be locked in 2 positions by a removable screw fitted underneath the arm.

Remove the screw to free the joint.



Rebalance the jib arm, as necessary, in accordance with the instructions below, turn on the mains isolator and check the light functions correctly.

4. OPERATION

Turn on the mains isolator, or plug in and switch on the 13A socket, depending on the type of installation.

Turn the light on using the switch on the head mounting.

This switch has 3 positions: centre: off; up: lower output intensity; down: lower output intensity.

Steer the light patch to where you want it using the Bioprotecttm handle on the light head.

5. MAINTENANCE

5.1 Cleaning

CAUTION: Do not use strong disinfectant agent such as 'Dettol' to clean the light. Do not use any abrasive cleaning agent. The light is not waterproof.

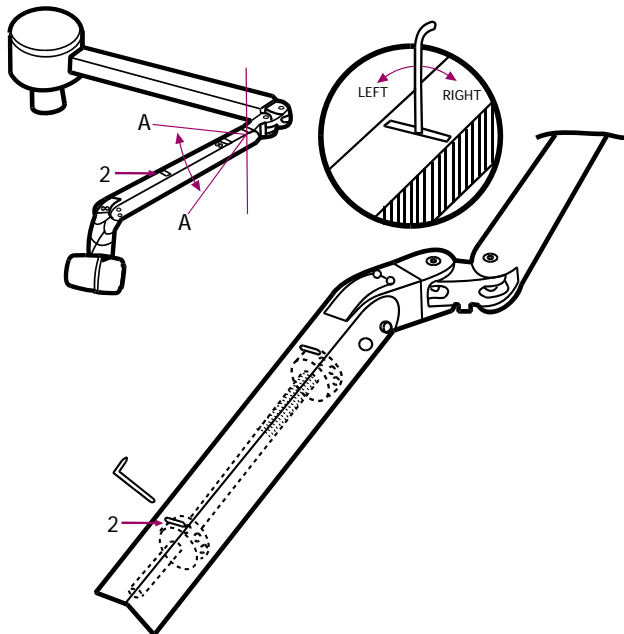
1. Suitably protect hands.
2. Wipe the light using clean tissue or soft towelling - pay special attention to the switch area.
3. Apply to all surfaces a 1% solution of sodium hypochlorite using a soft cloth.
4. Within 10 minutes, remove the chemical from all surfaces using a damp, soft cloth. The chemical will cause corrosion of metal parts, if it is not thoroughly removed.
5. Apply isopropanol to the surfaces - this is an alcohol-based fluid which evaporates without leaving any residue and can be obtained as an impregnated-cloth applicator.

5.2 Annual Maintenance

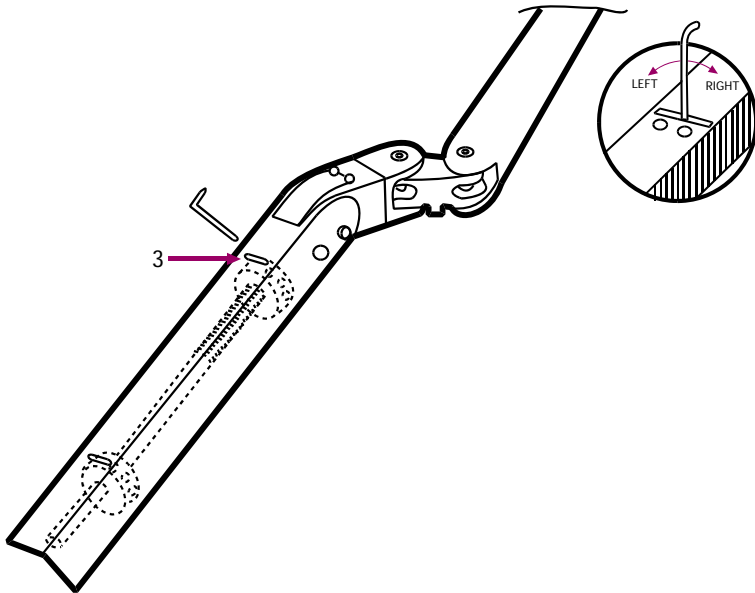
Apply a small amount of light oil to the pivot points.

Check that the arm moves smoothly and rebalance it, if necessary, as described below.

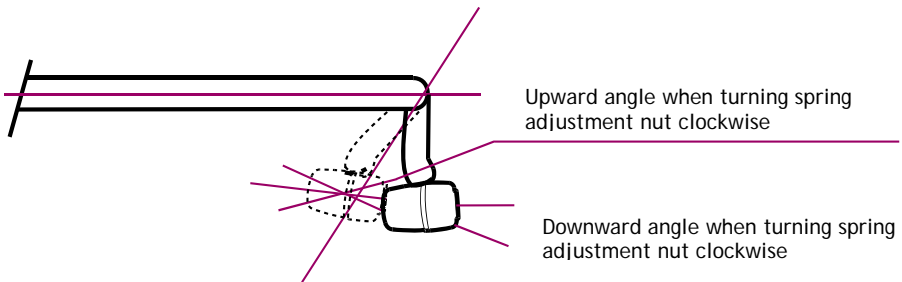
Arm Balance and 5.4 Head Angle Adjustment



Insert an allen key into slot 2, as shown. Turn the spring-adjustment nut clockwise for more tension; counter clockwise for less tension.



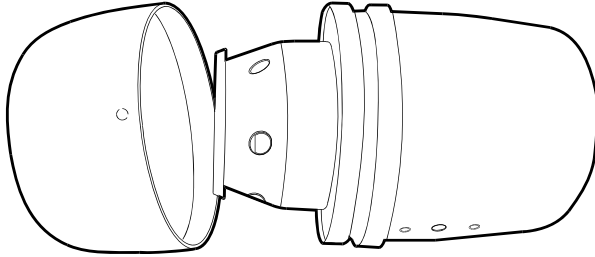
Insert an allen key into slot 3, as shown. Turn the spring-adjustment nut clockwise to change the head tilt angle.



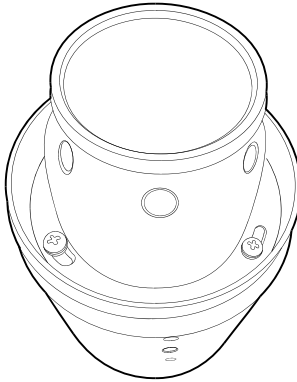
6. LAMP REPLACEMENT

CAUTION: The inside of the light will be extremely hot, if it has recently been used.

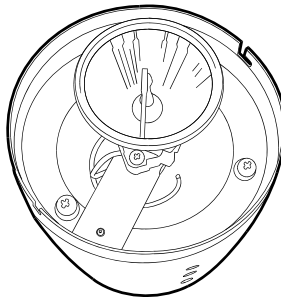
CAUTION: The X220's lamp is of a special type. The performance of the light will be severely degraded if a non-approved lamp is fitted.



Remove the light head front by twisting it anticlockwise and pulling it off.



Remove the filter assembly by pressing it down against the fixing-screw springs, twisting it anticlockwise until the screw heads slot into the larger of the keyholes, and lifting it out.



Gently pull the lamp forwards out of its holder.

Fit a replacement lamp and reverse the above sequence.

Returns Policy

IMPORTANT!

Before returning your item, you must call us on 0844 375 9000

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 OR DOA* Goods which are physically damaged on delivery, or which do not function.	We must be notified within 24 hours of receipt.
GOODS DEVELOPING A FAULT Goods which have developed a fault within the warranty period.	Within 14 days of delivery we will replace the item as DOA*. If the fault develops after 14 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.
OTHER Any situation which is not covered by the above.	We will try to help, but we cannot normally offer a refund.

*DOA - dead on arrival

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 are not eligible for returns, unless they are faulty or damaged.

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

If you purchase an item incorrectly you can return it within 14 days and it can be exchanged for another product of equal or high value, excluding transportation charges incurred.

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.

WARRANTY

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.

DARAY[®] HEALTHCARE PRODUCTS

WARRANTY REGISTRATION
TO VALIDATE YOUR WARRANTY
PLEASE COMPLETE IN BLOCK CAPITALS
AND RETURN IN A WINDOWED DL ENVELOPE
TO OUR FREEPOST ADDRESS

ALTERNATIVELY REGISTER ONLINE AT WWW.DARAY.COM

PLEASE TEAR OFF AND RETURN

5 YEAR AFTERCARE PLAN

NAME:
COMPANY:
EMAIL:
PHONE:
FAX:

ADDRESS:

PURCHASED FROM:

DATE OF PURCHASE:

Freepost Plus RRAS-YGXE-SLBC
Daray Ltd
Marquis Drive
SWADLINCOTE
DE12 6EJ

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HEALTHCARE PRODUCTS

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