



HARDIE
STREET LIGHTING

HSP 150mm Lighting Column



**Installation Operation &
Maintenance Manual**

Introduction

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Hardie Secure Products Ltd HSP 150mm Lighting Column (from hereon in called the 'lighting column') has been designed to give reliable operation for many years. The operating, safety, and maintenance instructions given in this Installation Operation and Maintenance Manual (from hereon in called 'the manual') will help keep your lighting column in good working order and condition.

Who should use this manual

All persons who install, operate, and maintain the lighting column must be suitably trained, competent, and qualified to do the work.

All work must be done in accordance with an approved risk assessment and method statement. Hardie Secure Products Ltd recommends that maintenance is done in accordance with this manual.

Intended purpose

This manual is intended to give you enough information about the lighting column so you can install, operate, and maintain it correctly.

Company details

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Produced and authored by AST Authors Limited.

Icons used in this manual

This manual uses the following notices:

	WARNING WARNINGS REFER TO THE RISK OF SERIOUS INJURY OR DEATH.
	CAUTION CAUTIONS REFER THE USER TO THE RISK OF MINOR INJURY OR DAMAGE TO EQUIPMENT, PROPERTY OR THE ENVIRONMENT.
	Note Notes give more information or refer the user to a recommended way of doing something.

Keeping these instructions

In accordance with **HSE**¹ requirements, this manual must be available for anyone maintaining, repairing or replacing the lighting column.

Modifications and changes

This manual must be kept up to date if the lighting column is modified or this manual is changed in any way. Modifications and Changes must be documented here:

Revision	Date	Modification	Reason	Who

Getting more information and help

If you need more information than what is given in this manual, contact Hardie Secure Products Ltd.

¹Health and Safety Executive - aims to reduce work-related death, injury and ill health.

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1. Safety Information

1.1 How to use the product safely



THE LIGHTING COLUMN MUST ONLY BE USED FOR THE PURPOSE DESCRIBED IN THIS MANUAL.



THE LIGHTING COLUMN MUST BE BURIED TO THE LINE INDICATED ON THE ROOT.

LANTERNS INSTALLED TO THE LIGHTING COLUMN MUST BE 5KG OR LESS.

LOWERING, RAISING, AND ALL WORK DONE ON THE LIGHTING COLUMN MUST BE BY COMPETENT AND SUITABLY TRAINED PERSONS AND IN ACCORDANCE WITH AN APPROVED RISK ASSESSMENT AND METHOD STATEMENT.

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2. Description of the Product

This section gives you information about...

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2.1 Intended Use

The lighting column is intended to be used for residential lighting, using a lightweight LED lamp weighing 5kg or less.

2.2 Product Description



The lighting column is supplied without gear, lamp or cable.

The lighting column:

- Is designed in the United Kingdom.
- Is BS EN 40-2 / 40-3-1 / 40-3-3 & 40-6 compliant.
- Is CE marked.
- Is made using 6005 aluminium: all components weigh less than the manual handling lifting limit.
- Is anodised to AA-25 for surface protection.
- Can be supplied as a 4, 5, or 6 meter column.
- Has a modular design to allow one (1) person to transport and handle the lighting column.
- Can be transported using a long wheelbase van: heavy vehicles are not necessary.
- Is a planted column, and can be installed using one (1) person: no special tools, lifting equipment, or large teams necessary.
- Top tubes have a standard diameter of 76.2mm.
- Allows a variety of lanterns to be installed.
- Can be lowered and raised by one (1) person for easy maintenance - no special tools necessary.

2.3 Component Schedule

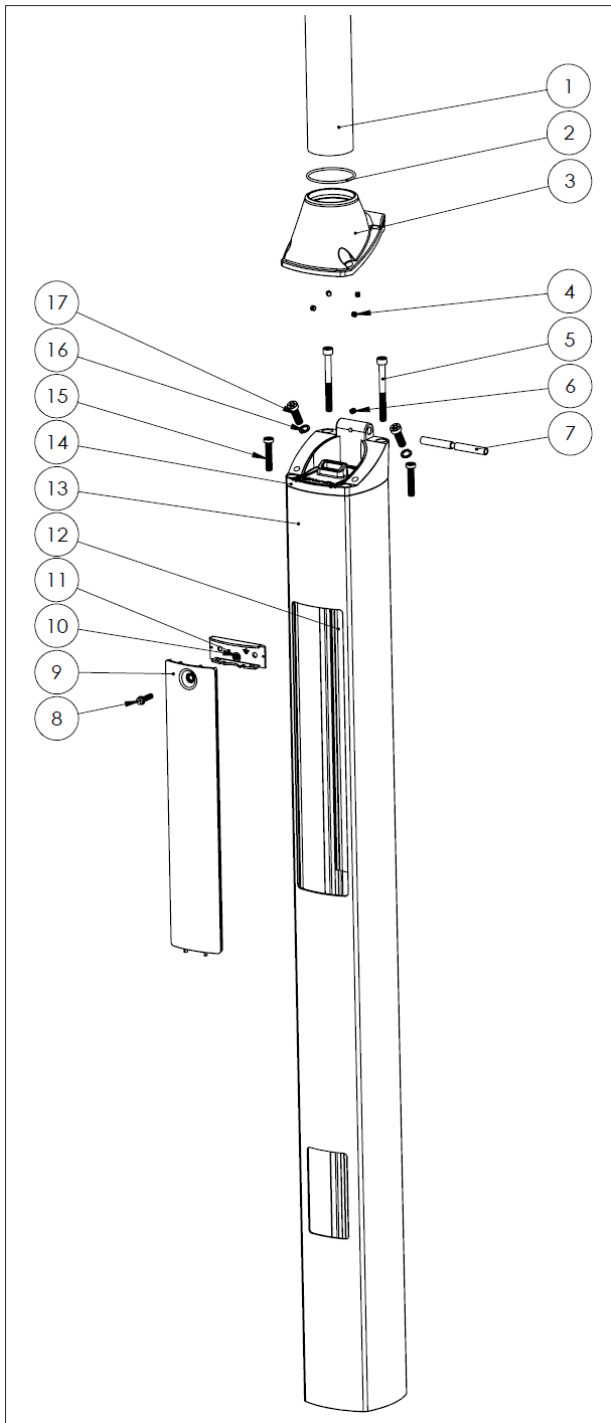


Figure 1

Item Number	Item Description	Qty	Item Number	Item Description	Qty
1	Top Tube	1	10	Nut, Rivet, M8 x 10mm	2
2	O-Ring, 82mm diameter	1	11	Door Bracket	1
3	Hinge, Top Casting	1	12	Back Board	1

2. Description of the Product

Item Number	Item Description	Qty	Item Number	Item Description	Qty
4	Screw, Grub, M8 x 8mm, stainless steel A2	4	13	Base Extrusion, Root, 150 SQ RD 108 x 108mm cut out	1
5	Screw, Socket Hex Cap Head, M10 x 100mm, stainless steel A4 80	2	14	Hinge, Bottom Casting	1
6	Screw, Grub, M8 x 8mm, stainless steel A2	1	15	Screw, Low Socket Head Cap, M10 x 50mm, stainless steel A4 80	2
7	Hinge Pin, M12 x 128mm length	1	16	Washer, Split Spring, M12	2
8	Screw, Tri Head	1	17	Screw, Torx Socket Cap Head, M12 x 35mm, T55, stainless steel A4 80	2
9	Door	1	-	-	-

Table 1

2.4 Specific Design Criteria

Suitability to the relevant codes of BS EN40 and Vol 2 Section 2 Part 1 BD 94-07 of the Design Manual for Road and Bridges.

2.5 Technical Information

Item	Description
Materials	6005 aluminium
Top tube diameter (mm)	76.2
Top tube lengths (mm)	3150, 4150, or 5150
Top tube weight (Kg)	3150 = 5 4150 = 6.5 5150 = 7.8
Base lengths (mm)	1730
Total weight (Kg)	4 meter column = 16.3 5 meter column = 17.8 6 meter column = 19.3
Finish	Anodised to AA-25

Table 2

2.6 Declaration of Conformity

See "Appendix B Declaration of Conformity (DofC)" on page 33.

3. Transporting and Handling

The lighting column has a modular design, is supplied in two (2) pieces, and transported using a suitable long wheelbase van. The lighting column is lightweight, and can be manually handled by one (1) person. For the recommended maximum weight limits for lifting, carrying and lowering, see the following diagram:

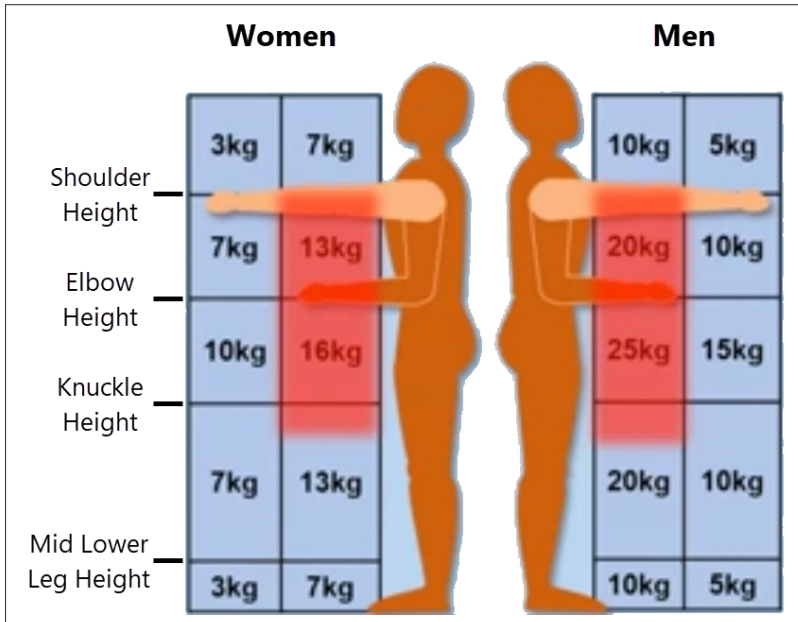


Figure 2



The total weight of a 5 meter lighting column is 17.8kg.

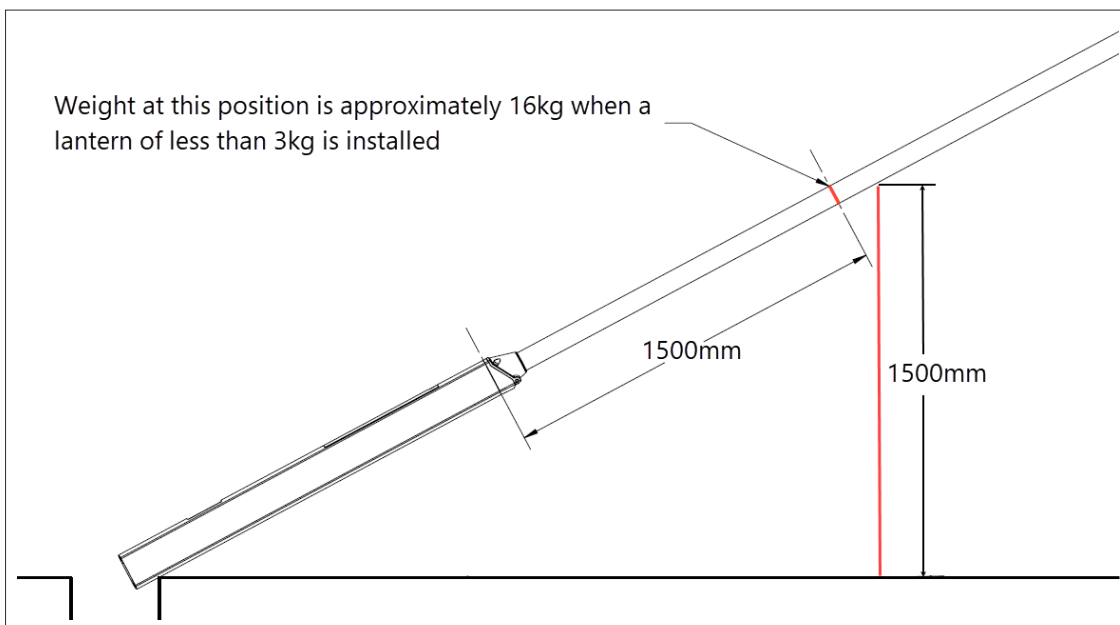


Figure 3

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4. Unpacking and Checking

See Transporting and Handling on page 7



DAMAGE TO THE SURFACE FINISH: DO NOT USE A RETRACTABLE BLADE TO OPEN THE PACKAGING.




- Using suitable scissors, cut open the packaging.
- Remove the packaging.
- Check all parts are included in the delivery.
- Visually check all parts for damage.
- If storing the parts, see Storing on page 21.

Contact Hardie Secure Products Ltd if there is a problem with the delivery.

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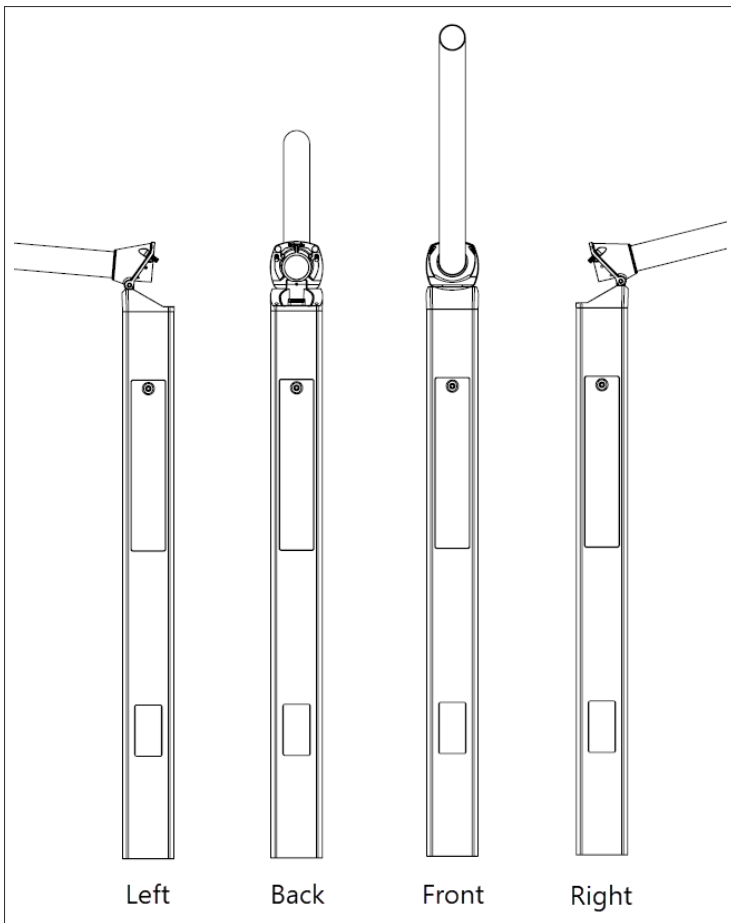
5. Installing

5.1 Overview of installation

 	<p>THE LIGHTING COLUMN MUST ONLY BE USED FOR THE PURPOSE DESCRIBED IN THIS MANUAL.</p> <p>INSTALLATION MUST BE DONE BY COMPETENT AND SUITABLY TRAINED PERSONS IN ACCORDANCE WITH AN APPROVED RISK ASSESSMENT AND METHOD STATEMENT.</p> <p>THE LIGHTING COLUMN MUST BE BURIED TO THE LINE INDICATED ON THE ROOT.</p> <p>ROOT PROTECTION MUST INSTALLED.</p> <p>THE LAMP INSTALLED TO THE LIGHTING COLUMN MUST BE 5KG OR LESS.</p>
	<p>Installation procedures will be different depending on the substrate in which the lighting column will be buried, and the weather conditions the lighting column will operate in. An approved risk assessment and method statement must be produced before starting the works and which fully consider the substrate and operating conditions.</p> <p>We suggest that the lighting column is assembled on the floor, including installing the lantern and feeding the cable through the top tube, before lifting it into the ground.</p> <p>The lighting column is supplied without gear, lamp or cabling.</p>

5.2 Changing the hinge direction

The lighting column has 4 different hinge directions:

**Figure 4**

If necessary, the hinge direction should be changed before installing lighting column.

The hinge direction can be changed as follows:

- Open the Top Casting (3).
- Using an 8mm Hex Key, remove Grub Screw (6) from the Bottom Casting (14).
- Using a suitable drift and a mallet, remove the Hinge Pin (7) from the Bottom Casting (14).
- Carefully remove the Top Casting (3) from the Bottom Casting (14).
- Using a 10mm Hex Key, remove Screws (5) and (15) from the Bottom Casting (14).
- Remove the Bottom Casting (14) from the Base Extrusion (13).
- Rotate the Bottom Casting (14) to a different hinge position as necessary.
- Make sure the Bottom Casting (14) is located on the Base Extrusion (13) correctly.
- Apply a suitable thread lock to Screws (5) and (15).
- Using a 10mm Hex Key, install Screws (5) and (15) into the Bottom Casting (14).
- Using a torque wrench, tighten four Screws (5) and (15) to 1580cN.m.

5.3 Connecting the top tube to the top casting

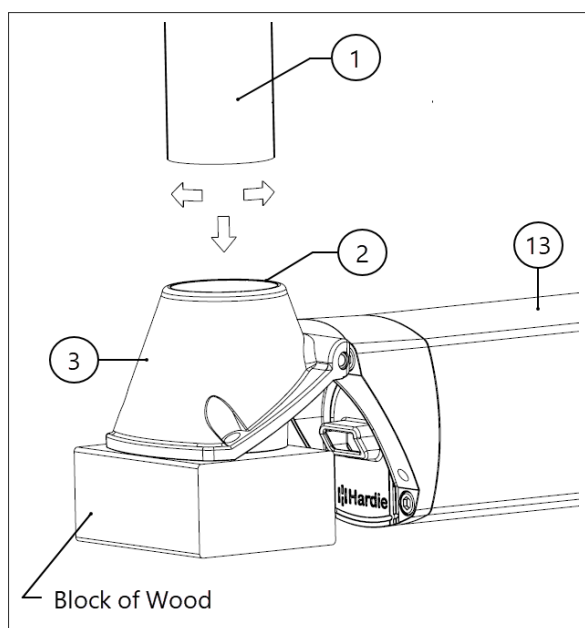


Figure 5



The following procedures assume the Top Tube (1) is not installed to the Top Casting (3).

- Put suitable protection on the floor.
- Put the assembly on the floor (as shown).
- Using a soft clean lint-free cloth, clean the Seal (2), the Top Tube (1), and the Top Casting (3) to remove any dirt or debris.
- Install the Seal (2) into the Top Casting (3). Make sure the Seal (2) is installed correctly.
- Apply a suitable waterproof lubricant (such as Corrosion Block Waterproof Grease) inside the Top Casting (3), on the Seal (2), and on the surface of the Top Tube (1).
- Put a block of wood under the Top Casting (3) (as shown) to support it. We recommend using a block of wood with dimensions 67 x 120 x 150mm.
- Using your hands, gently rotate the Top Tube (1) side-to-side (as shown) while pushing it into the Top Casting (3) until it stops.

5. Installing

- Using a 4mm Hex Key, install four Grub Screws (4) into the Top Casting (3):

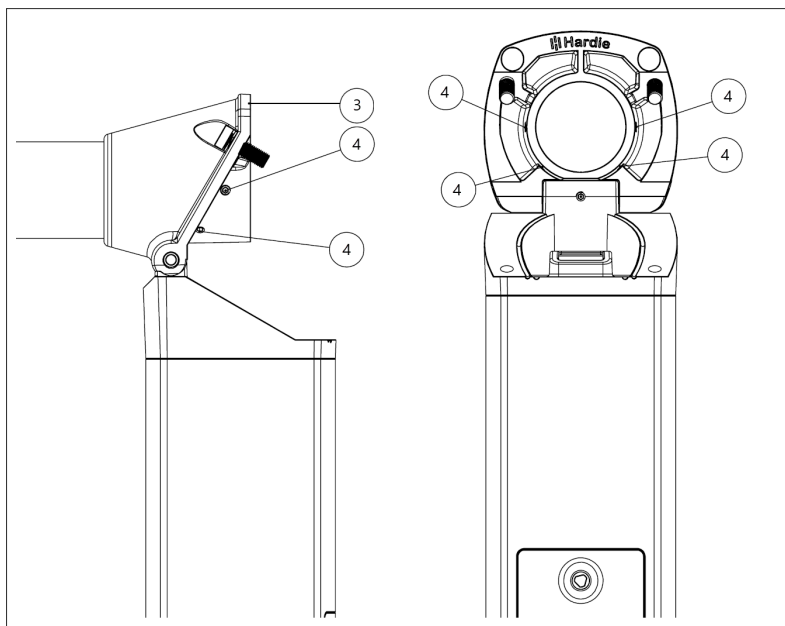


Figure 6

- Using a torque wrench and a 4mm Hex Key, tighten four Grub Screws (4) to 55cN.m:



Grub Screws (4) must not be above the surface of the Top Casting (3).

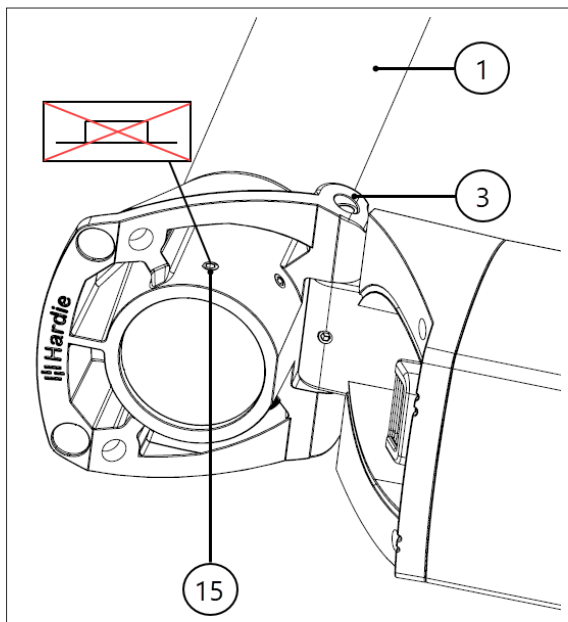


Figure 7

- Using a cloth, remove all excess lubricant from all surfaces.

6. Operating

See Intended Use on page 4.

See Safety Information on page 1.



LOWERING AND RAISING MUST BE DONE BY COMPETENT AND SUITABLY TRAINED PERSONS IN ACCORDANCE WITH AN APPROVED RISK ASSESSMENT AND METHOD STATEMENT.

6.1 Lowering the lighting column



DAMAGE TO THE HINGE: USE A TRESTLE TO SUPPORT THE COLUMN IN THE LOWERED POSITION.

- Locate a suitable trestle under the lighting column, near the lamp end.
- Adjust the trestle so that it is higher than the Top Casting (3).



We recommend using two (2) persons for the next steps.

- Position one (1) person behind the lighting column: this person will remove Screws (17) and Washers (16) from the Bottom Casting (14).
- Position one (1) person in front of the lighting column, holding the Top Tube (1).
- Using one (1) person, a ratchet and a 55 Torx Socket, remove Screws (17) and Washers (16) from the Bottom Casting (14).
- Using one (1) person, hold the Top Tube (1) and lower the lighting column by carefully walking backwards towards the trestle: the second person can act as a lookout.



DAMAGE TO THE HINGE: IT IS RECOMMENDED THAT THE LIGHTING COLUMN IS NOT LOWERED TO THE HORIZONTAL POSITION AND NEVER BELOW THE HORIZONTAL POSITION. KEEP THE LIGHTING COLUMN AT AN ANGLE OF 5° OR MORE.

- Carefully put the lighting column onto the trestle. Make sure the lighting column is not in the fully horizontal position or below the horizontal position.



DAMAGE TO THE HINGE: DO NOT PUT WEIGHT ON THE LIGHTING COLUMN WHEN IT HAS BEEN LOWERED.

6.2 Raising the lighting column



We recommend using two (2) persons for the next steps.

- Using one (1) person, hold the Top Tube (1) and raise the lighting column by carefully walking towards the Base Extrusion (13) and put the lighting column in the vertical position: the second person can act as a lookout.
- Using one (1) person, a ratchet and a 55 Torx Socket, install Washers (16) and Screws (17) into the Bottom Casting (14).
- Using a torque wrench, tighten Screws (17) to 1600cN.m.

7. Maintaining

See Safety Information on page 1.

7.1 Planned Maintenance

7.1.1 Schedule of Maintenance

Maintenance Task	Frequency	Who	PPE ¹	Task is Regulatory / Warranty* / Recommended (Reg / War / Rec)
Inspecting	1-Yearly	Competent, trained contractor	As per RAMS	Rec
Cleaning	As-Required	Competent, trained contractor	As per RAMS	Rec

Table 3

*Where lighting column is under warranty, it is still the operator's responsibility to make sure that maintenance is done in accordance with the Warranty and Guarantee on page 25 and Schedule of Maintenance above.

7.1.2 Equipment, Tools, Materials, and Consumables

Task	Equipment	Tools	Materials	Consumables
Inspecting	Suitable trestle	7mm Hex Bit, 8mm Hex Bit, 55 Torx Socket, Calibrated Torque Wrench, and Tri Head Socket Key	-	Suitable penetrating lubricant
Cleaning	Suitable bucket	-	Clean, soft lint-free cloths	Mild, non-abrasive detergent and clean water

Table 4

¹Personal Protective Equipment - equipment that helps protect the user against health or safety risks.

7.1.3 Maintenance Tasks

7.1.3.1 Inspecting

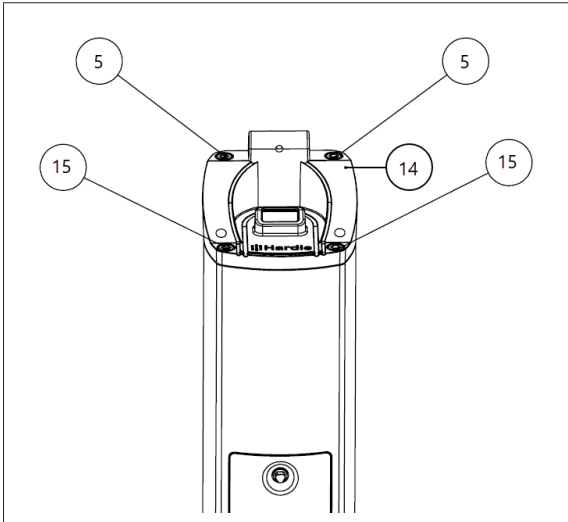
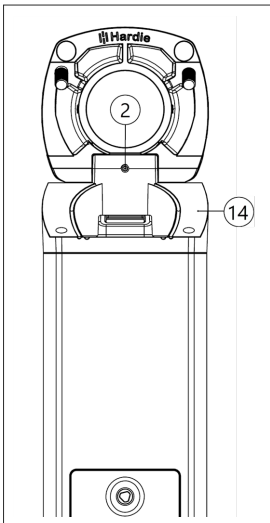
Procedure	Notes	Who	When
<p>Lower the lighting column. See Operating on page 15.</p> <p>From the Bottom Casting (14), using the Torx bit and the Torque Wrench, check Screws (5) and (15) for correct tightness: torque must be 1580cN.m:</p> 			
<p>From the Bottom Casting (14), using the Torx bit and the Torque Wrench, check Grub Screw (6) for correct tightness: torque must be 55cN.m:</p> 			
<p>From the Top Casting (3), using the Torx bit and the Torque Wrench, check four Grub Screws (4) for correct tightness: torque must be 55cN.m:</p>			

Figure 8

Figure 9

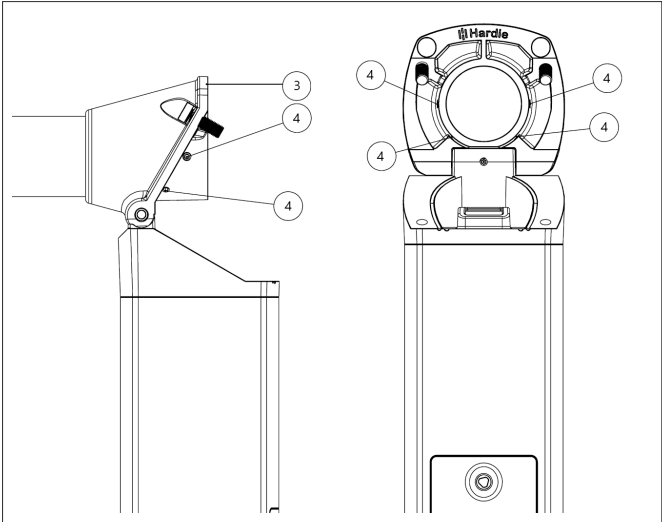
Procedure	Notes	Who	When
			
<p>Figure 10</p>			
<p>Move the hinge assembly backwards and forwards: check for smooth operation and listen for unusual noises. If the hinge is stiff or you hear a noise, spray a small quantity of the lubricant onto the Hinge Pin (7).</p>			
<p>Check the Seal (2) is present and in good condition. If necessary, remove the Top Tube (1) and replace Seal (2). See Connecting the top tube to the top casting on page 13.</p>			
<p>Visually check all components of the lighting column for damage or missing parts. Report any damage and / or missing parts and arrange immediate replacement. See Installing on page 11.</p>			
<p>Raise the lighting column. See Operating on page 15.</p>			

Table 5

7.1.3.2 Cleaning

Procedure	Notes	Who	When
<p>Lower the lighting column. See Operating on page 15.</p>			
<p>Using the cloth dampened with a solution of the water and the detergent, clean the lighting column to remove all dust, dirt and deposits.</p>			
<p>Using the cloth, dry the lighting column.</p>			
<p>Raise the lighting column. See Operating on page 15.</p>			

Table 6

7.2 Corrective Maintenance

If during maintenance you find missing, damaged or worn parts, contact Hardie Secure Products Ltd.

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8. Storing

See Transporting and Handling on page 7.

Store the lighting column as follows:

- Apply suitable protection to all parts.
- Store all parts in a dry location.
- Make sure all parts are kept together.

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9. Disposing

The lighting column is made using 6005 aluminum. This material can be disposed of by the local authority in accordance with local regulations.

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10. Warranty and Guarantee

The lighting column is guaranteed for 35 years. Contact Hardie Secure Products Ltd for information.

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11. Glossary

H

HSE

Health and Safety Executive - aims to reduce work-related death, injury and ill health.

P

PPE

Personal Protective Equipment - equipment that helps protect the user against health or safety risks.

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12. Appendices

- Appendix A Drawings on page 31
- Appendix B Declaration of Conformity (DofC) on page 33
- Appendix C Manufacturers' Literature on page 35

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12.1 Appendix A Drawings

For drawing information, contact Hardie Secure Products Ltd.

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12.2 Appendix B Declaration of Conformity (DofC)

EU Declaration of Conformity

1. **Product model:** Hardie Hinged Raise and Lower Columns

2. **Name and address of the manufacturer or his authorised representative:**

Hardie Secure Products Ltd
Moreteyne Farm, Wood End, Marston Moretaine
Bedfordshire, MK43 0NY
01234 962872
hsfabrications@msn.com

3. **This declaration of conformity is issued under the sole responsibility of the manufacturer.**

4. **Object of the declaration:**

Equipment: Raise and Lower Column
Brand name: Hardie
Model/type: 5m Raise and Lower Modular Column
6m Raise and Lower Modular Column

5. **The object of the declaration described above is in conformity with the relevant Union harmonization legislation:**

The above products are in conformity with the provisions of the following EU Regulation:
Construction Product Regulations No. 305/2001 dated 9 March 2011 and that the requirements of standards
EN40 – 6 " Lighting Columns – Requirement for Aluminium Lighting Columns has been applied.

6. **References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:**

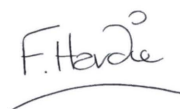
BS EN 40-6 (2002) Lighting Columns - Aluminium

Additional Qualifications BS EN ISO 9001 – Quality Management System

7. **Signed for and on behalf of:**

Hardie Street Lighting Ltd, Hardie Secure Products Ltd

Date of Issue: 1 April 2023



Frank Hardie – Director Certificate No: CC:HSL:010423r

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12.3 Appendix C Manufacturers' Literature

Not applicable.