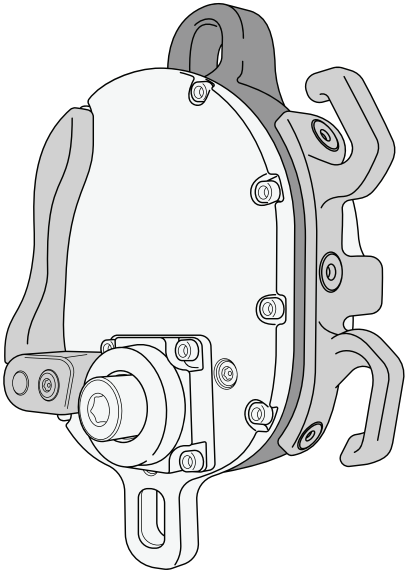
Drill Winch

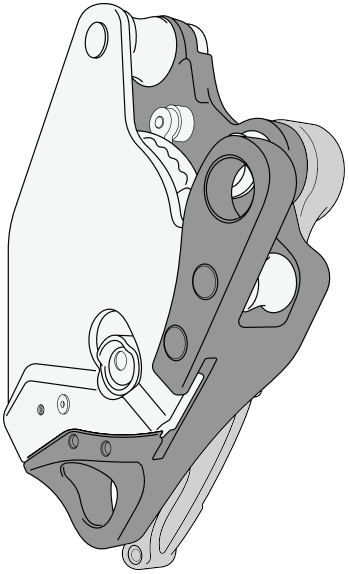
DWx

Original Instructions

Manufactured & Supplied by
www.atheightuk.com

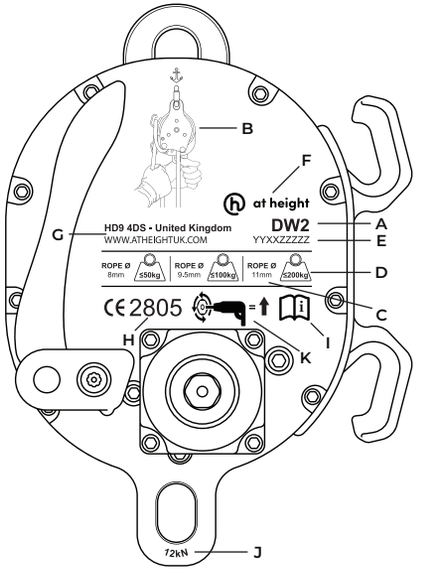


DW2



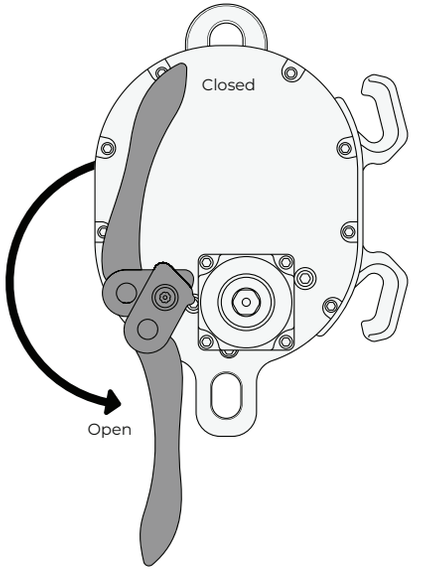
DW3

Explanation of Markings

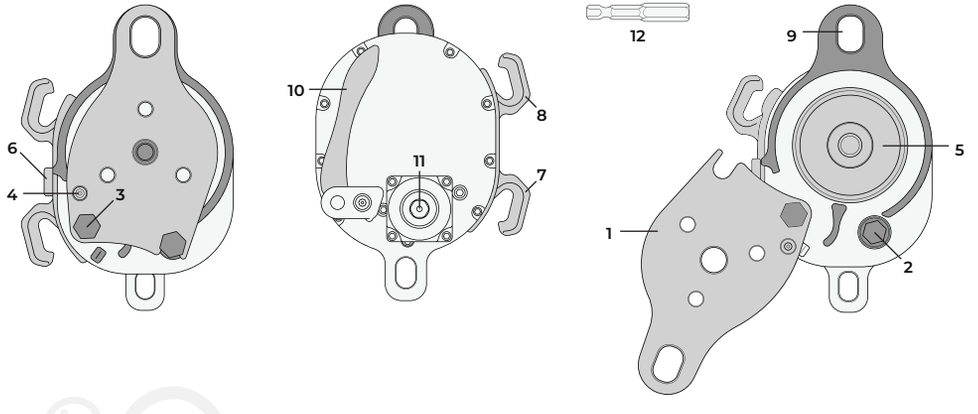


A) Product Code
B) Indication of Correct Position
C) Rope Diameter Range(s)
D) Working Load Limit(s)
E) Serial Number
F) Brand Logo
G) Contact Information
H) CE Mark with Notified Body No.
I) Read and follow instructions supplied by the manufacturer
J) Attachment Point MBS
K) Drill Direction

Handle Position

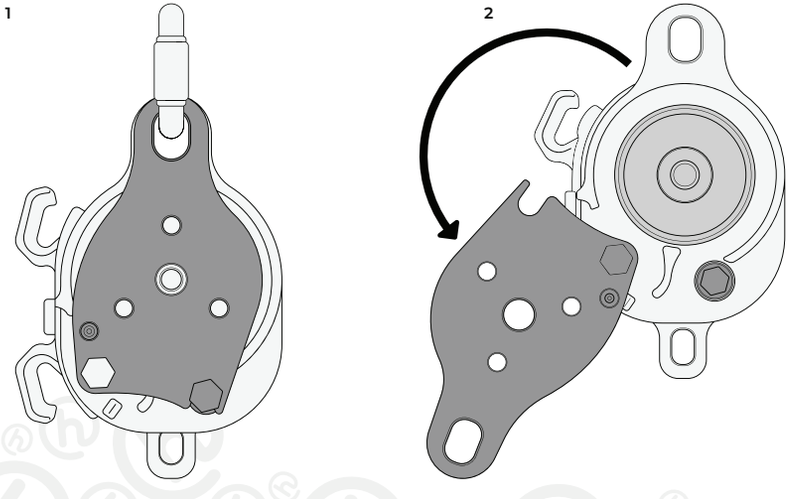


Name of Parts



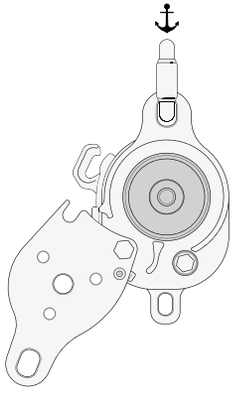
1) Moveable Side Plate **2)** Rope Wheel Guide **3)** Rope Wheel Guide
4) Friction Wheel **5)** Rope Wheel **6)** Friction Bar
7) Friction Hook **8)** Friction Hook **9)** Main Attachment Hole
10) Release Handle **11)** Drill Adapter Interface **12)** 8mm Hex Drill Bit

Opening the Plate



Loading the Rope

1



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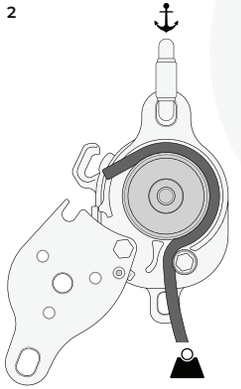

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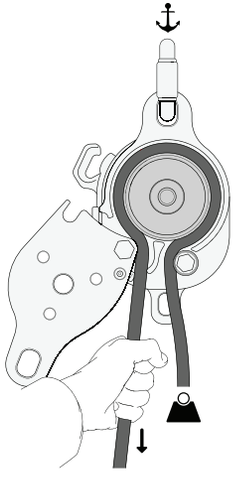

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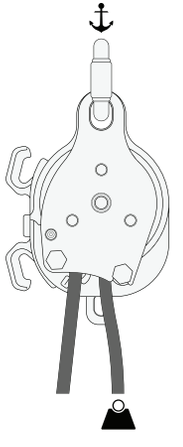
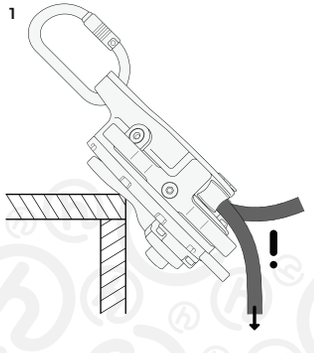


Incorrect Operation

1



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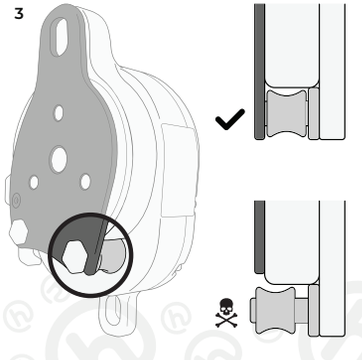
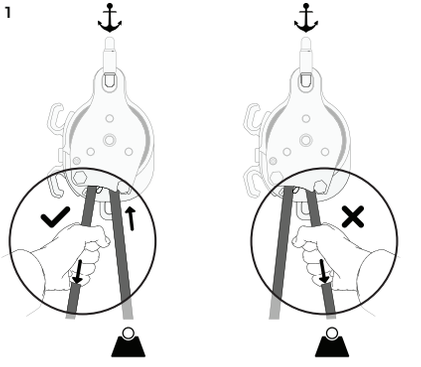


Functional Tests

1



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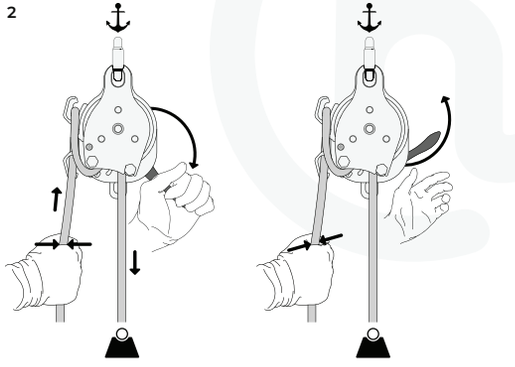
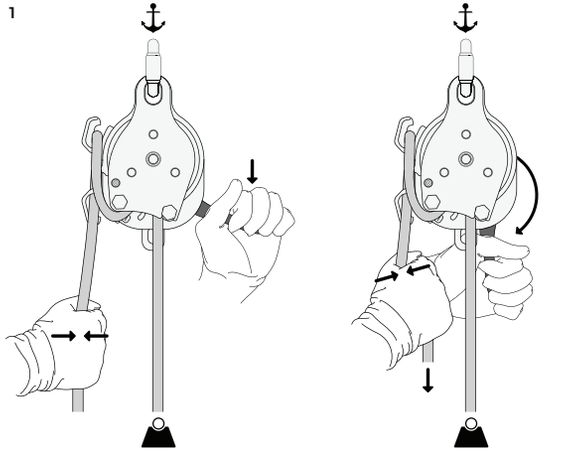


Normal Lowering

1

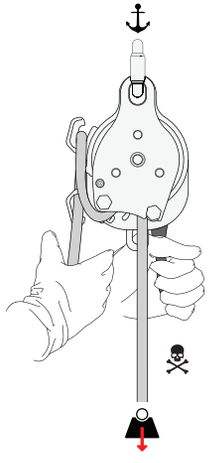


WARNING!

For controlled lowering, run the rope through the friction bars then pull the handle fully open to release the ratchet mechanism. Heavier loads require greater friction. Maintain grip on the rope at ALL TIMES.

Warnings of Hand-off and Incorrect Grip

1



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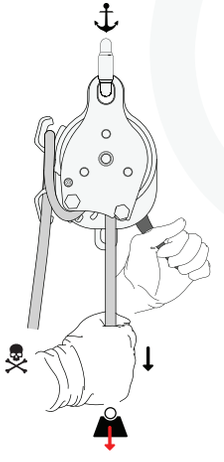

Manual Lifting and Electric Lifting

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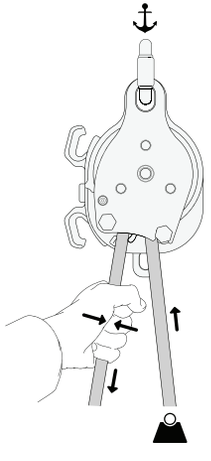

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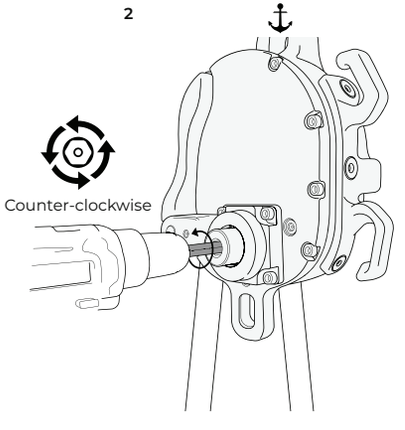
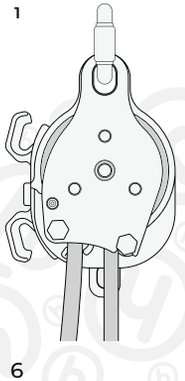


Locking Off the Rope

1



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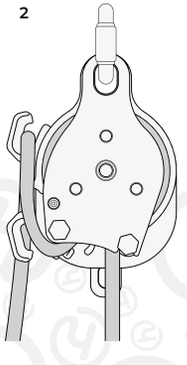

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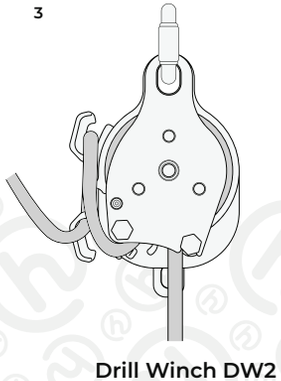
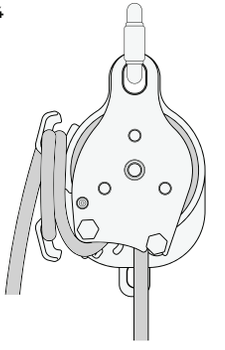


Locking Off the Rope (continued)

4



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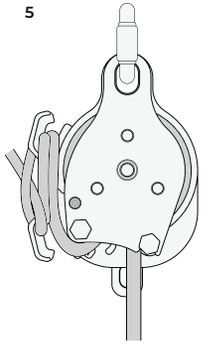
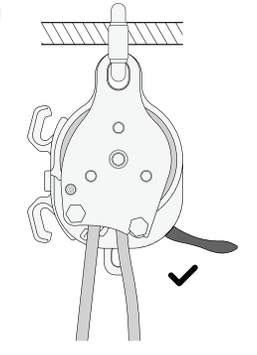
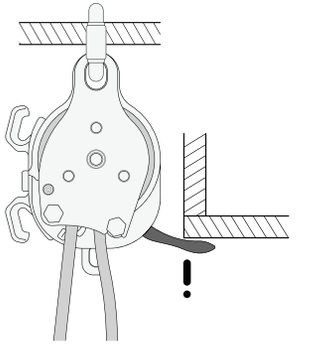


Make Sure Handle Operation is not Obstructed

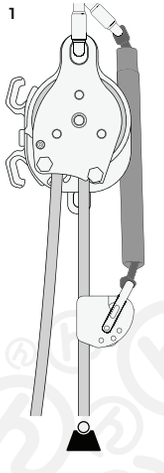
1





Can be used with a Backup System

1



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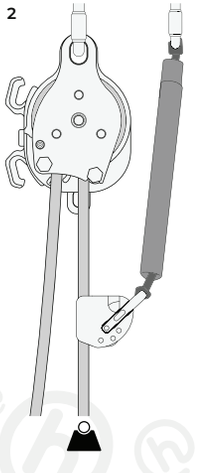

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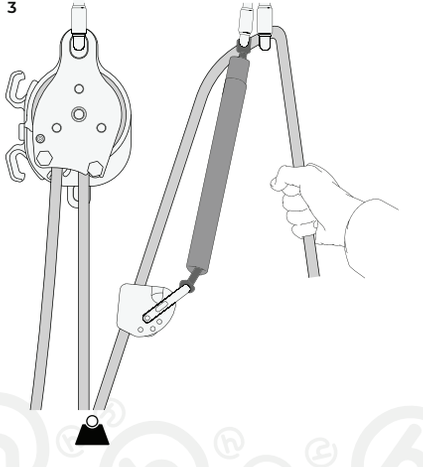
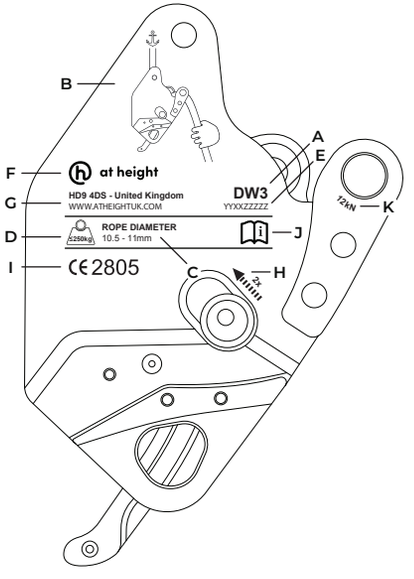
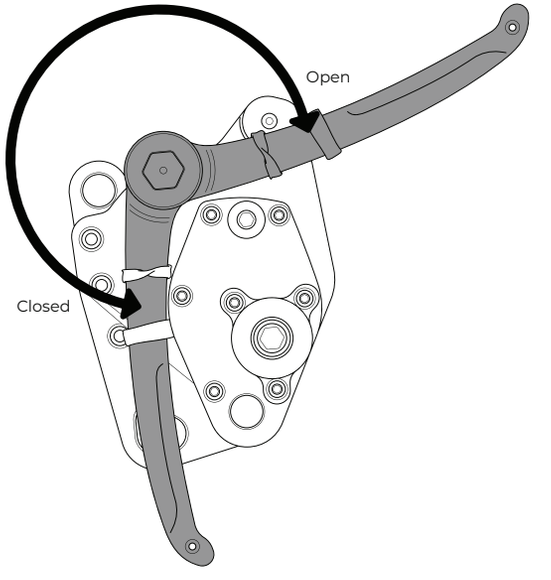


Explanation of Markings

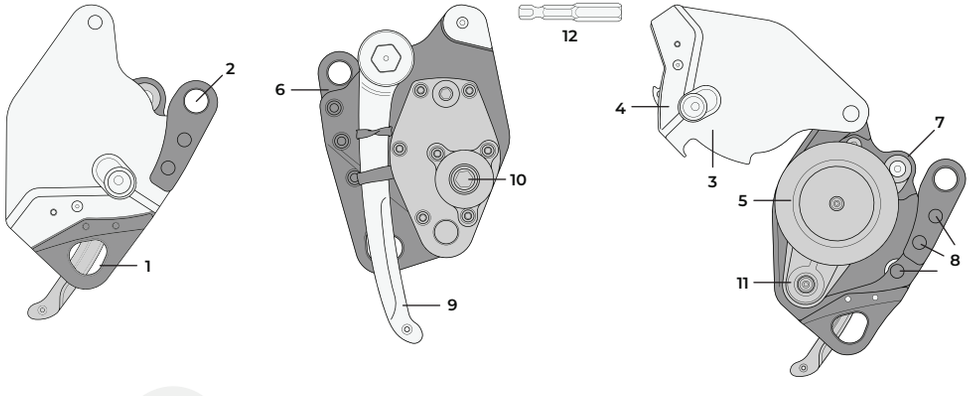


A) Product Code
B) Indication of Correct Position
C) Rope Diameter Range
D) Working Load Limit
E) Serial Number
F) Brand Logo
G) Contact Information
H) Plate Opening
I) CE Mark with Notified Body No.
J) Read and follow instructions supplied by the manufacturer
K) Attachment Point MBS

Handle Position

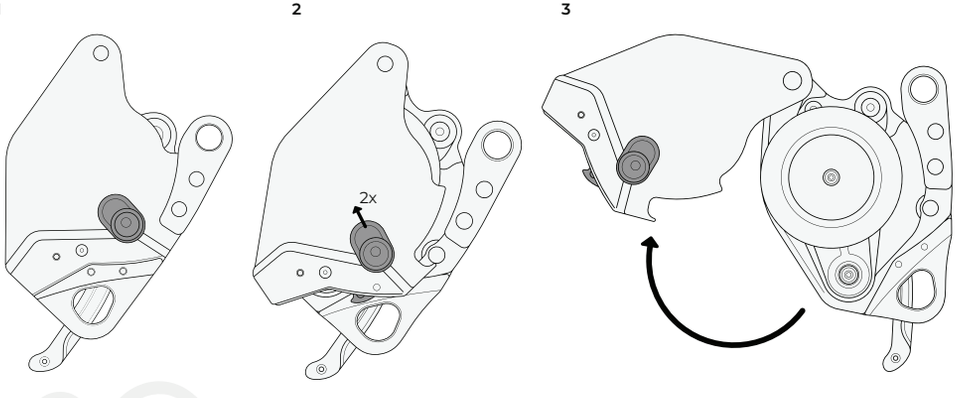


Name of Parts



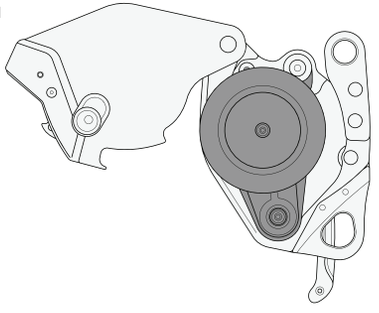
1) Main Attachment Hole **2)** Becket
3) Moveable Side Plate **4)** Locking Mechanism **5)** Wheel
6) Friction Block **7)** Rope Guide (Rope in) **8)** Rope Guides (Rope out)
9) Release Handle **10)** Drill Adapter Interface **11)** Gearbox **12)** Hex Drill Bit

Opening the Plate



Loading the Rope

1



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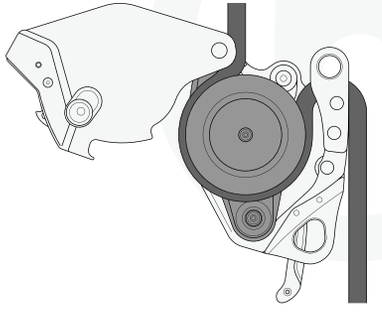

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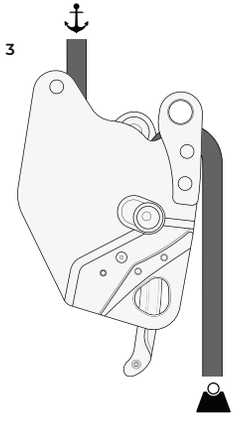
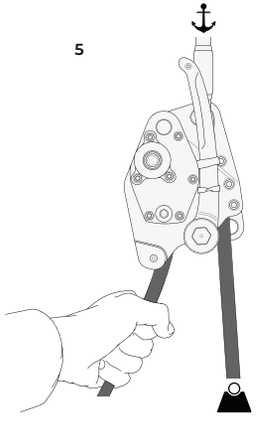


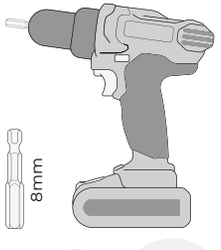
4

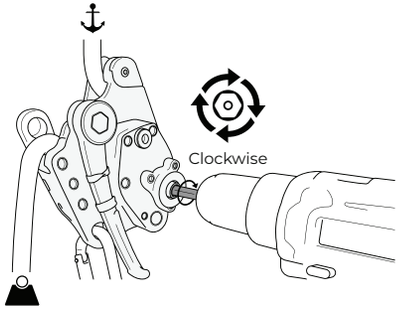
2x 'Click' =

5

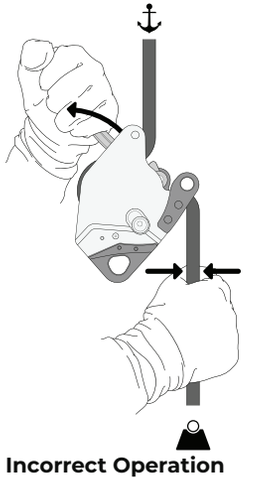


Lifting





Lowering



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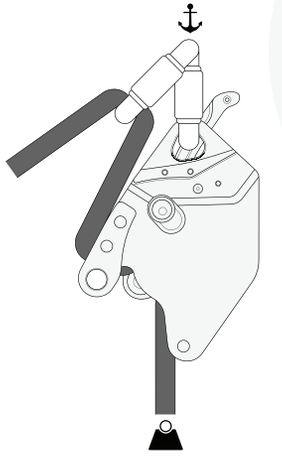
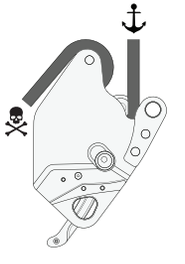


Incorrect Operation

1



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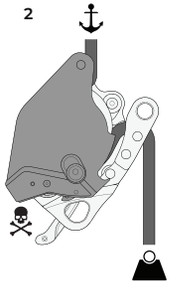

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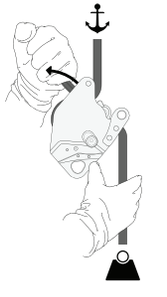

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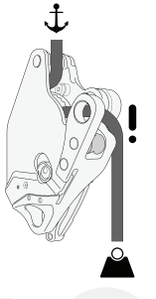

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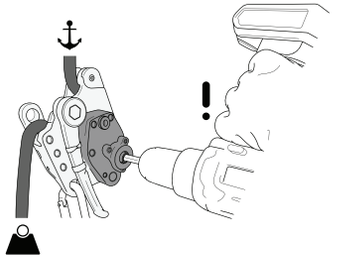
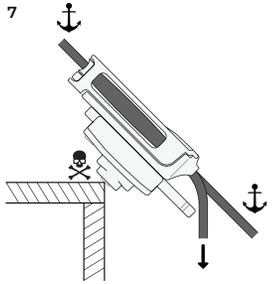
6

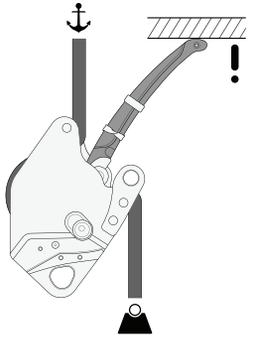


Incorrect Operation (continued)

7



8



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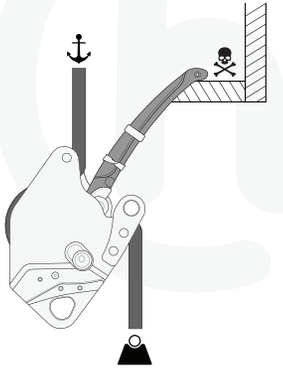
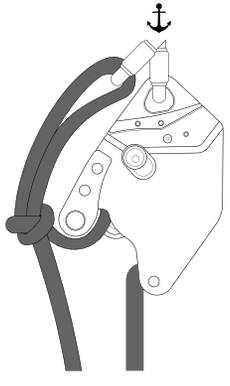
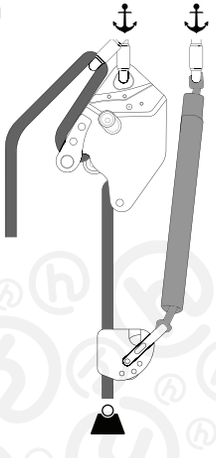


Locking Off the Rope



Can be used with a Backup System

1



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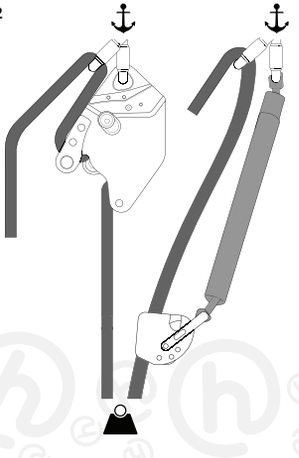

Introduction

The DW2 and DW3 Drill Winch by At Height Ltd is a machine used for lifting/lowering loads and people. It can be used in many applications including work at height, rescue, rigging and materials handling.

The DW2 and DW3 have been certified by a Notified Body in accordance with the Machinery Directive 2006/42/EC Annex 4 part 17 and meet the Essential Health and Safety Requirements of Annex 1.

Responsibilities & Warnings

Work at height is inherently dangerous.

It is the responsibility of any person using this equipment to understand, learn and practice the proper techniques for safe and efficient use of the equipment. It is impossible for this document to cover every eventuality and incorrect use of this equipment may result in fatal consequences.

This equipment should only be used by a competent person and a person who has been trained in its use. This equipment should not be used by persons with medical conditions that may affect the safety of the user. You are responsible for your own actions and any person using this equipment assumes all risks and full responsibility for all damage and injuries which may result from its incorrect use. No responsibility will be accepted by At Height Ltd for damage, injury or death resulting from misuse.

These instructions and pictograms show some of the common correct and incorrect methods of use. it is impossible to foresee them all. There is no substitute for instruction by a trained and competent person. It is essential that a risk assessment is carried out prior to any use and a rescue plan be in place to deal with any emergencies.

If this product is resold outside the original country of destination it should be supplied with these instructions for use in the language of the country in which it is sold.

Product Information

DW2 is a drill operated lifting device with an integrated progress capture pulley. It is geared at ~8:1 for assisted lifting. For controlled lowering, the rope must be fed through the friction bars. See above for details. For lifting, the drill must rotate counter-clockwise.

DW3 is a drill operated lifting device with an integrated progress capture pulley. It is geared at ~8:1 for assisted lifting.
The lever handle can used for controlled lowering. There is no anti-panic function so the user must maintain control of the rope at all times during the lowering. See above for details. For lifting, the drill must rotate clockwise.

DW2 Technical Specifications

Model:	DW2
Standards:	Machine Directive 2006/42/EC Annex 4
Product Type:	Drill Winch (Lifting and Lowering Device)
Weight:	2kg
	EN 1891 type A
Rope Diameter / Load Range:	Rope Diameter 8mm - 9.5mm to EN1891A or EN564
	Max Rated Load with 8mm is 50kg
	Max Rated Load with 9.5mm is 100kg
	Max Rated Load with 11mm is 200kg
Gear Ratio:	8:1
Becket:	Yes, MBS 12kN
Drill Torque:	≥ 100Nm recommended. Do not use impact/hammer drill
Free Fall:	Do not exceed a free fall distance more than 0.3m
Operating Temperature:	-20°C - +40°C

DW3 Technical Specifications

Model:	DW3
Standards:	Machine Directive 2006/42/EC Annex 4
Product Type:	Drill Winch (Lifting and Lowering Device)
Weight:	1.5kg
	EN 1891 type A
Rope Diameter / Load Range:	Rope Diameter 10.5mm to 11mm to EN1891A
	Max Rated Load @ 200kg
Gear Ratio:	8:1
Becket:	Yes, MBS 12kN
Drill Torque:	≥ 100Nm recommended. Do not use impact/hammer drill
Free Fall:	Do not exceed a free fall distance more than 0.3m
Operating Temperature:	-20°C - +40°C

Compatible Parts

When using these devices to lift and lower people -
- Use compatible Personal Protective equipment that meets International Standards.
- Use anchors that meet International Standards with an MBS of at least 12kN.
- EN1891A ropes are recommended. Rope construction and conditions vary and it's up to the user to determine if the rope is correct for the safe and efficient use.

Safety Precautions

The wheels incorporate a V groove which generates grip/friction. The wheels do not rotate when lowering so it is inevitable that the rope will wear or change its shape especially if using heavier loads or faster speeds. Clean, well cared-for ropes will reduce wear on the metal parts. If in doubt assess the rope in accordance with the manufacturer's instructions.

Overloading the device will shorten its life and the life of the rope and the drill. Serious overloading could cause catastrophic failure.

When lifting/lowering people it is recommended that a separate safety back up device is used. In all uses the user must maintain control of the rope during lowering.

The maximum rated load on both devices is 200kg. This allows for a Safety Factor of approximately 5:1. For use during a rescue it is possible for a competent person to allow a lower Safety Factor of 4:1 to lift/lower loads of up to 250kg if other conditions allow it (e.g. condition of rope, use of a suitable back up device etc.)

This product is not designed to take shock loads. Limit free fall distance at all times to a maximum of 0.3m.

In Use:
- The device should not exceed 70dB(A). Check your drill to ensure it has a suitable dB rating. If in any doubt, use suitable PPE.

DW2 Operating Instructions

Loading the Rope:
- Open the movable side plate and fit the rope as shown above.
- Close the side plate and ensure the connector is in place to lock the side plate in position.
- Check to make sure the handle is in the closed position.

Note: The movable side-plate of this product has a closed hole, the connector needs to be removed to load or unload the rope. Be careful not to drop the product during handling.

Lifting:
- With the device attached to the upper anchor point and the rope fitted correctly, it can be used to manually take in slack or lift weight.
- The integral becket can be utilised to create mechanical advantage.
- Lifting by electric drill - using an 8mm Hex key operate the drill COUNTER-CLOCKWISE.

Warning: When using an electric drill to lift, always ensure that the release handle is in the closed position to prevent the goods or objects from falling.

Lowering:
Prepare for lowering:
- Load the rope correctly.
- Check to ensure that the handle is in the closed position.
- The control end of the rope is wrapped around the friction bars with optimal friction.

Descent Steps:
- With one hand Pull the release handle fully open and keep it open.
- With your other hand slowly release the rope to start lowering the load. Maintain control at all times.
- To pause or stop the descent, either wrap the rope around the friction bars to increase friction or let go of the release handle.

DW3 Operating Instructions

Loading the rope:
- Attach the device to the anchor device(s) or users harness with appropriate connectors.
- Open the side plate and load the rope as shown above.
- Close the side plate. Ensure that it is fully closed as shown above.
- Ensure that the handle is in the locked position.

Lifting:
- With the device attached to the upper anchor point and the rope fitted correctly, it can be used to manually take in slack or lift weight.
- The integral becket can be utilised to create mechanical advantage.
- Lifting by electric drill - using an 8mm Hex key operate the drill CLOCKWISE.

Warning: When using an electric drill to lift, always ensure that the release handle is in the closed position to prevent the goods or objects from falling.

Lowering:
- When the device is attached directly to the user harness it can be used as an ascender/descender.
- When the device is connected to an anchor point it can be used to lower materials or people.

Prepare for Lowering:
- Ensure the rope is loaded correctly and the release handle is in the closed position.
- Hold the control rope firmly in your hand then slowly rotate the release handle with your other hand to start the descent.
- To pause or stop the descent let go of the release handle.

Device Checks

Pre-use checks:
Before using this product, inspect and test that you have the correct rope, and correct connecting components is functioning properly.
- Check whether this product has deformation, corrosion, cracks, severe wear, sharp surfaces, etc. If any, stop using it immediately, and contact a competent person for advice.
- Check the cleanliness of components such as wheel, friction block, etc.
- Check if the rope is in good condition and appropriate for use.
- If the device is excessively noisy, or vibrates unusually, or doesn't lift a load stop immediately and contact a competent person for advice.
- Before first use, carry out a trial over a short distance in safe area to ensure that the wheel turns, the ratchet locks, the handle releases and the rope doesn't slip.

Inspection during use:
- During lifting and lowering pay close attention to the device and look in particular for rope slippage.

Regular inspection:
- A competent person should thoroughly inspect the device at least every 6 months looking for damage or wear. The gearbox is sealed and theoretically does not need to be re-lubricated.
- Do not inject lubricant into the device as it may cause the rope to slip through the wheel.
- Do not disassemble the device without adequate instruction.
- Check the moving parts of the release handle. If they are stuck, clean them thoroughly and apply lubricating grease.

- Check all fixing bolts of the product. If they protrude above the mounting surface. Use a screwdriver to tighten them. If the bolts loosen repeatedly, add a small amount of Threadlock.
- The Drill Winch device is made primarily from aluminium and stainless steel. When stored, cleaned and used correctly its lifespan could be indefinite.
- If there is any doubt about the security of the device, you should immediately stop using it and contact the manufacturer for technical support.

Note - the wheels are made from hardened stainless steel so wear should be minimal. If the wheel is worn enough that a new rope slips under load then the device should be retired.

Storage & Maintenance

Good storage and maintenance can extend the life of this product. The device is supplied in a strong plastic carry case which will protect it during transportation
- This product is suitable for storage in an environment of 10°C ~ 30°C, avoid water ingress, moisture, corrosive liquid and corrosive gas erosion.
- After each use, this product should be wiped clean, and then ventilated to dry, not exposed to the sun, to avoid sweat and other corrosive liquids staying on the surface for a long time and causing corrosion.
- Regularly inspect the handle moving parts and guide bearings, clean up dirt and add lubricating oil.
- Except for the routine maintenance of re lubricating, any modification, replacement of parts or repair of this product can only be carried out by the manufacturer or authorised distributors, and self disassembly, modification and repair are strictly prohibited.

Periodic Examination

An inspection card should be filled in before first use by a competent person. Periodic examination is required for the continued efficiency and durability of the equipment. Regular formal inspection by an authorised competent person should be carried out every 6 months or in line with applicable international standards.

Inspection Record - Drill Winch

Model	Agent	Serial Number
Manufacture	Address	Contact Information
Date of Manufacture / Expiry Date	Date of Purchase	Date of First Use
Other Relevant Information		

Periodic Examination and Repair History

Date	Reason for Return (Periodic Examination or Repair)	Defects Noted, Repairs Carried Out and Other Relevant Information	Name and Signature of Competent Person	Periodic Examination Next Due Date

DW2 / DW3 Warranty

The manufacturer provides one year limited warranty for defects in the materials and production process of the product.

The warranty does not cover damage to the product caused by wear, deformation, corrosion, oxidation, self-modification or repair, incorrect operation, improper storage and transportation, and other usage than for which it was designed.

DW2 / DW3 EU Certification & Notified Body

DW2/DW3 EC Examination and Certification was carried out by Safenet Certification Services Ltd, Ducart Suite, Castletroy Park Commercial Campus, Limerick, V94 Y6FD, Republic Of Ireland
Manufacturer – At Height Ltd, 41c Underbank Old Road, Holmfirth, HD91AS, United Kingdom
Declares that the following product(s)
Drill Winch DW2 and DW3
Conforms to the requirements of Machinery Directive 2006/42/EC Annex 4.

The Declaration of Conformity accompanies each product in hard copy and is also available on the product pages at www.atheightuk.com

Manufactured & Supplied by
www.atheightuk.com