



**SMART
LIFTER**

Power Pack

Setup Manual



Safety Guidelines

NOTE: This manual is compiled from the latest specifications and product information available at the time of publication. We reserve the right to make changes as they become necessary. Any changes to our products may cause slight variations between the illustrations and explanations in this manual. The latest/current version of this manual is available on our website.

If you require an electronic version or translated version of the manual please scan the QR code or enter the URL (<https://www.mobilityinmotion.com/Autochair-Installer-Manuals>) and select the appropriate manual.

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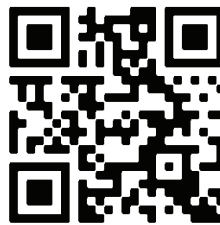
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תירבע - שמהסרגה רובע ותאה תבותב תא תא ווא QR-ה דוק תא קורס שמתשמל כירדמה לש תירבעה



WARNING!

The Power Pack is only intended to be installed by an accredited dealer or installer. Do not attempt to install the Power Pack yourself.

The following symbols are used to identify warnings and important details throughout this manual. Please read them and ensure you are aware of their meaning.



WARNING!

These symbols denote a potentially dangerous situation. Failure to carry out the specified procedures may result in injury or damage to the device.



MANDATORY!

The indicated actions must be carried out as specified. Failure to perform the specified actions may result in injury or damage to the device.



PROHIBITED!

Do not carry out the indicated actions. They should not be performed at any time, under any circumstances. Carrying out a prohibited action may result in injury or damage to the device.



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2. Safety

2.1 - Product Safety Symbols

Please review the symbols below carefully to ensure you fully understand their meanings. These symbols are used on the Power Pack and throughout this manual to indicate warnings, as well as mandatory or prohibited actions.

Li-ion	Lithium-ion - The Power Pack contains a Lithium-ion (Li-ion) cell.
	Corrosive - Represents materials that can destroy or irreversibly damage living tissues (such as skin and eyes) or corrode metals upon contact. These substances may be strong acids, bases, or other highly reactive chemicals.
	Flammable - Indicates that a substance can easily catch fire when exposed to heat, sparks, or flames. It is used on materials that ignite quickly and burn rapidly under normal conditions.
	Toxic - Indicates that a substance is poisonous and can cause serious harm or death if inhaled, swallowed, or absorbed through the skin.
	Environmental - Warns that a substance is dangerous to the environment, particularly to aquatic life in water bodies such as rivers, lakes, and oceans.
	Electrical - Used to warn people of the dangers of electric shock, electrocution, or burns from electrical equipment or exposed wiring.
	Disposal and recycling - Contact your local designated recycling facility that accepts lithium-ion batteries for guidance on safe disposal.





2. Safety

2.2 - Safe Handling Procedures




The following procedures relate to the safe handling of the Power Pack. Please review them carefully to ensure you fully understand their meanings.

✓ **DO:**

INSPECT THE POWER PACK BEFORE USE – Check for swelling, leaks, or damage before charging or using the battery.

	WARNING! DO NOT use or charge the Power Pack if you notice swelling, leaking, smoking, or unusual odours.
	WARNING! A damaged Power Pack can expose you to toxic and corrosive chemicals. Damage can also increase the risk of fire and environmental harm. 
	MANDATORY! If you notice swelling, leaking, smoking, or unusual odours, follow the guidelines in Section 2.4 and 2.5 of this manual for instructions of how to safely dispose of your Power Pack.

HANDLE WITH CARE – Avoid dropping, crushing, or puncturing the Power Pack.

	WARNING! A damaged Power Pack can expose you to toxic and corrosive chemicals. Damage can also increase the risk of fire and environmental harm. 
	MANDATORY! If the Power Pack is dropped or crushed, inspect the Power Pack immediately. If you notice swelling, leaking, smoking, or unusual odours, follow the guidelines in Sections 2.4 and 2.5 of this manual for instructions on how to safely dispose of your Power Pack.

2. Safety

X DO NOT:

EXPOSE TO HEAT – Do not place the battery near radiators, stoves, direct sunlight, or inside a hot car.



WARNING! Exposure to elevated temperatures can cause the Power Pack to overheat or swell, increasing the risk of fire.



MANDATORY! If the Power Pack is hot, place it in a safe, cool, and non-flammable area to cool down.



MANDATORY! The Power Pack **MUST NOT** be left in direct sunlight or in temperatures exceeding 60°C (140°F). To ensure optimal performance, remove the Power Pack from the vehicle when stationary if it is exposed to direct sunlight or operating in unsuitable temperatures.

EXPOSE TO WATER OR MOISTURE – DO NOT submerge in water.



WARNING! **DO NOT** immerse in water, as this may cause the Power Pack to short-circuit. Short-circuiting can increase the risk of fire and electrical shock. Exposing to water can also cause environmental damage.



MANDATORY! Keep the Power Pack dry at all times.

MIX WITH METAL OBJECTS – Avoid carrying or storing the Power Pack alongside metallic items such as keys or coins.







WARNING! **DO NOT** carry or store the Power Pack alongside metallic items, as this may cause the Power Pack to short circuit. Short-circuiting can increase the risk of fire and electrical shock.



2. Safety


MODIFY OR TAMPER – Never open the Power Pack casing or modify it in any way, as this can be extremely dangerous.

	WARNING! DO NOT use or charge the Power Pack if you notice swelling, leaking, smoking, or unusual odours.
	WARNING! A damaged Power Pack can expose you to toxic and corrosive chemicals. Damage can also increase the risk of fire and environmental harm. 
	MANDATORY! NEVER open the Power Pack casing. Repairs and servicing should ONLY be carried out by the manufacturer.

2.3 - Magnetic interference and medical devices

The Smart Lifter Power Pack contains a magnet to allow it to connect to the blade bracket.

Under certain conditions, magnets and electromagnetic fields might interfere with active implanted medical devices. For example, implanted pacemakers may contain sensors that respond to magnets when used in close contact. To avoid any potential interference with these types of medical devices, keep the Power Pack a safe distance away from your medical device (more than 154mm/6 Inches apart). Consult with your physician and your device manufacturer for specific guidelines.

	WARNING! If you suspect that the Power Pack is interfering with your medical device, consult your physician and your medical-device manufacturer.
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2. Safety

2.4 - Handling a Damaged Power Pack Safely

The guidance stated below is safety critical. Please read and ensure that you fully understand the information provided, before operating your Power Pack.

SAFETY



- **MOVE AWAY IMMEDIATELY** – If you notice a damaged or leaking battery, leave the area immediately and ensure others do the same. Leaking batteries can release hazardous chemicals or gases.
- **AVOID DIRECT CONTACT – DO NOT** touch the damaged battery unless absolutely necessary.
- **DO NOT ATTEMPT TO CONTAIN THE LEAK** – Without the proper safety equipment, sealing or containing the leak could increase risk. Leave it undisturbed and seek professional help.

DISPOSAL

- **CONTACT A PROFESSIONAL** – The safest way to dispose of a damaged Power Pack is to call a qualified waste disposal or recycling service. Many locations have designated hazardous waste facilities for handling damaged batteries.
- **FOLLOW LOCAL REGULATIONS** – Always check local disposal guidelines for lithium batteries, as improper disposal can pose environmental and safety risks.

HANDLING

- **ONLY MOVE THE BATTERY IF ABSOLUTELY NECESSARY** – If the battery poses an immediate danger (e.g., near flammable materials), carefully move it to a non-flammable surface in a well-ventilated area, away from heat sources, flames, or sparks.
- **USE EXTREME CAUTION** – If moving the battery is unavoidable, wear gloves and handle it using a non-conductive, non-absorbent tool or material to prevent direct exposure.

	<p>WARNING! A damaged Power Pack can expose you to toxic and corrosive chemicals. Damage can also increase the risk of fire and environmental harm.</p> <div data-bbox="591 873 1009 967"></div>
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IF THE POWER PACK IS SMOKING OR CATCHING FIRE

If the Power Pack starts to smoke or catches fire, please refer to the following instructions:

SAFETY

- **EVACUATE IMMEDIATELY** – Move away from the fire and ensure everyone nearby does the same. **DO NOT** attempt to retrieve belongings—lithium battery fires can spread rapidly and release toxic fumes.
- **CALL EMERGENCY SERVICES** – Dial **999 (UK) 911 (USA) 000 (AUS)**. Clearly state that it is a lithium battery fire.
- **PROVIDE CLEAR INFORMATION TO EMERGENCY SERVICES** – Inform responders that the fire involves a lithium battery, as this requires specialized handling.
- **STAY CLEAR AND WAIT FOR PROFESSIONALS** – Even if the fire appears to be out, lithium batteries can reignite. Maintain a safe distance and follow emergency responders' instructions.

FIRE RESPONSE - IF ABSOLUTELY NECESSARY

- **DO NOT USE WATER** – Water can worsen a lithium battery fire and should never be used.
- **USE AN APPROPRIATE FIRE EXTINGUISHER (ONLY IF SAFE TO DO SO)** – If a **Class D (metal fire)** extinguisher or a dry powder extinguisher is available, use it from a safe distance. Standard household extinguishers are **NOT** suitable unless specifically rated for lithium fires.
- **CONTAIN THE FIRE ONLY IF SAFE** – If the fire is small and manageable, you may attempt to smother it with a fire blanket or cover it with a non-flammable metal container. Do not attempt this if the fire is spreading or producing heavy smoke.



2. Safety

2.5 - Power Pack Safe Disposal

The following guidance outlines the correct procedures for disposing of the Power Pack safely.

DO NOT DISPOSE OF THE POWER PACK IN HOUSEHOLD WASTE

The Power Pack contains a lithium-ion cell. Improper disposal of lithium-ion batteries can pose a significant risk of fire. They should **NEVER** be discarded with general household waste or recycling bins, as they could ignite, especially if crushed or exposed to moisture. Improper disposal can also lead to environmental damage - the chemical within the lithium-ion cell is toxic and corrosive.

	<p>WARNING! Improper disposal can lead to exposure of toxic and corrosive chemicals. Damage can also increase the risk of fire and environmental harm.</p> <div data-bbox="592 467 1009 565"></div>
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UTILISE DESIGNATED RECYCLING FACILITIES

Please refer to the instructions below for correct procedure when disposing of a Power Pack:

UK & EU


Please dispose of this battery pack at an authorized recycling facility. Local recycling centers can be located through municipal waste services or by visiting **www.recycle-more.co.uk** (UK) or **www.recycle.eu** (EU).

AUS

Dispose of the battery pack at an approved recycling drop-off location. To find your nearest facility, visit **www.recyclingnearyou.com.au**.

USA

This battery pack must be recycled through certified programs. To locate collection points, visit **www.call2recycle.org** or check with your local waste management services.

	<p>MANDATORY! Always dispose of lithium-ion batteries at recycling facilities that accept them.</p>
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2. Technical

2.1 - Product Specifications

Power Pack

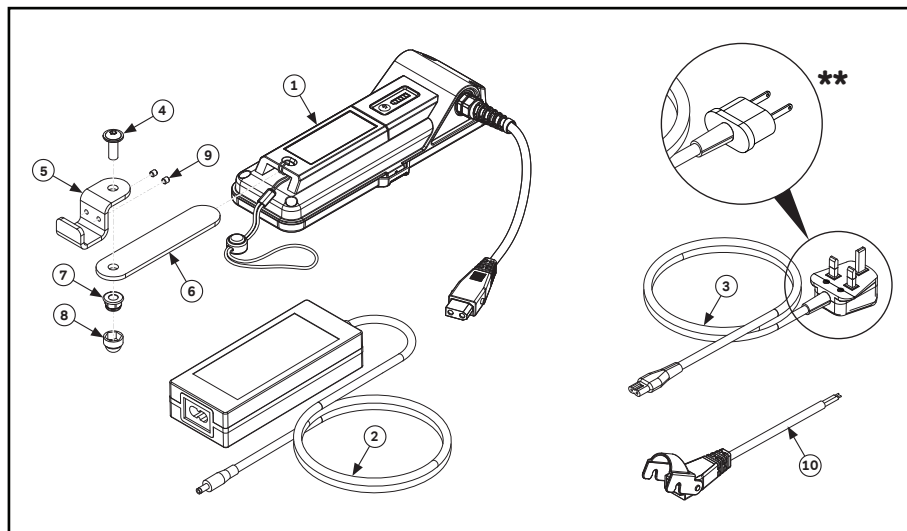
Model	Smart Lifter Power Pack
Rating	14.4v DC/115.5Wh
Weight	1.5Kg
Chemistry	Lithium-ion

Battery Charger

Model	AP-PN120CH01680060
Input	100-240V – 50/60Hz 2.5A
Output	16.8V = 6.0A 100.8W

2.2 - Contents

ILLUSTRATED PARTS



** The charger plug illustration is for reference only; the actual plug supplied will match the standard for the country of delivery.

ILLUSTRATED PARTS LIST

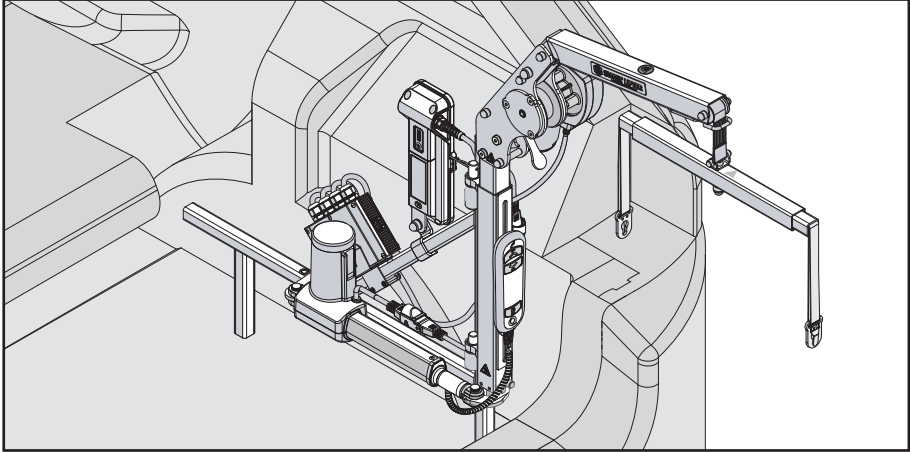
Item No.	Description	Qty.
1	Smart Lifter Power Pack with Wrist Strap	1
2	M8x20 Flanged Button Head Screw - BZP	1
3	Battery Bracket - Clamp	1
4	Battery Bracket - Blade	1
5	M8 Flanged Nyloc Nut	1
6	M8 Nut Cap - Black	1
7	M4x4 Grub Screw Cup Point - BZP	2
8	Plug and Lead	1
9	Charging Adapter	1
10	Power Pack Connector	1

3. Installation

3.1 - Power Pack Location

MOUNTING LOCATION

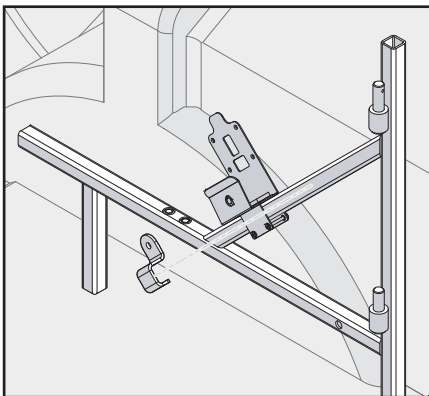
Dependent on the vehicle; the dedicated A-Frame will be installed on the specified side. The Power Pack will be secured to the diagonal strut of the A-Frame, with its placement determined by available space and accessibility to facilitate easy removal by the end user. The final position will be determined by the installer, and both the position and angle of the Power Pack may be adjusted as needed.



3.2 - Power Pack Bracket Installation

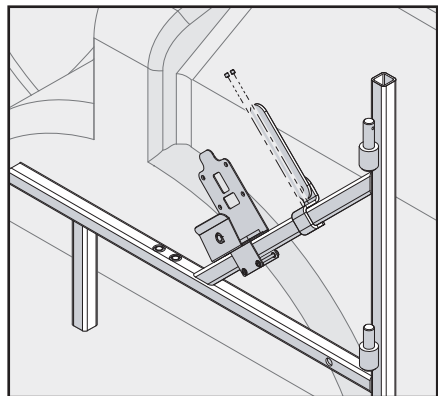
ATTACHING THE POWER PACK BRACKET

The following steps outline the procedure for attaching the Power Pack bracket to the A-Frame. The bracket should be mounted onto the diagonal strut of the A-Frame, with its placement determined by factors such as the vehicle's boot trim layout and the location of the Control Box. **Frame attachments are omitted for clarity.**



1. POSITION THE CLAMP BRACKET

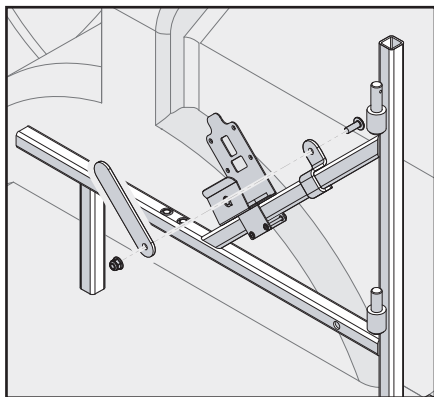
Position the clamp bracket on the diagonal strut of the A-frame, considering the vehicle's boot trim layout, the control box location, and accessibility to ensure the Power Pack can be easily removed.



2. SECURE THE CLAMP BRACKET

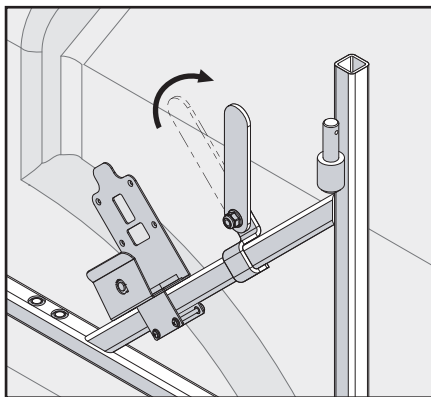
Secure the clamp bracket to the diagonal strut using the two grub screws, ensuring both fixings are fully tightened.

3. Installation



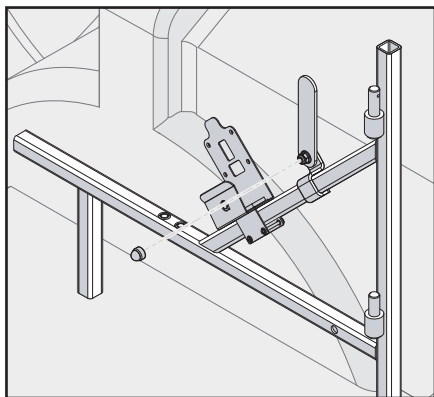
3. ATTACH THE BLADE BRACKET

Next, attach the blade bracket to the clamp bracket using the flanged button head screw and Nyloc nut, leaving it loosely secured for now.



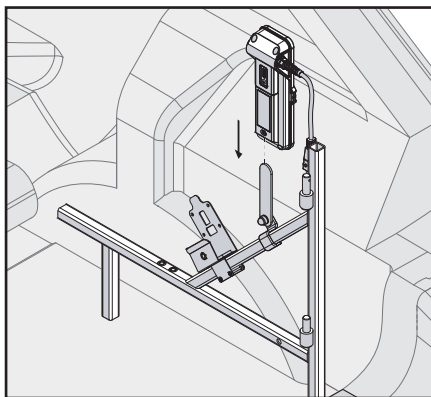
4. ADJUST THE BLADE BRACKET ANGLE

Adjust the angle of the blade bracket to achieve a vertical position, taking into account the vehicle's boot trim layout, control box location, and accessibility to ensure the Power Pack can be easily removed.



5. SECURING THE BLADE BRACKET

Fully tighten the blade bracket fixings and cover the Nyloc nut with the nut cap.



6. ATTACHING THE POWER PACK

Slide the power pack onto the blade bracket.

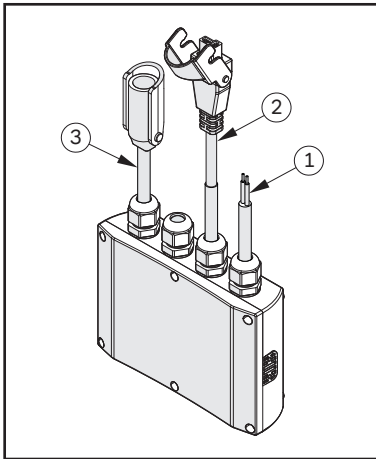


MANDATORY! Ensure that all fixings are properly secured and fully tightened.

4. Wiring

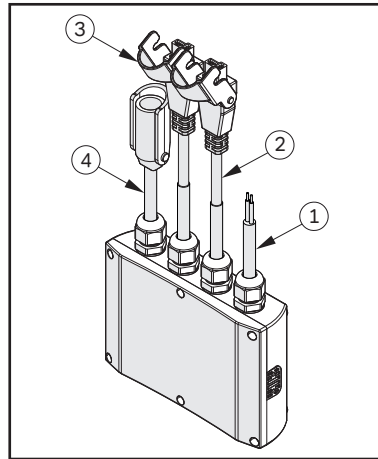
4.1 - Power Pack Bracket Installation

There are two types of control boxes, depending on whether a 2-way or 4-way hoist is being installed. Below are illustrations of both the 2-way and 4-way control boxes. The 4-way control box includes an additional cable for the In/Out actuator.



2-WAY WIRING SET UP

- 1 = 12v Battery Connection
- 2 = Motor Connection
- 3 = Handset Connection

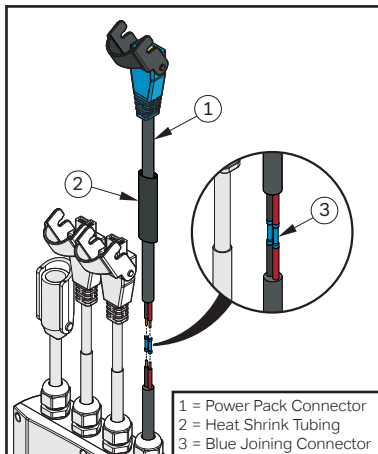


4-WAY WIRING SET UP

- 1 = 12v Battery Connection
- 2 = Motor Connection
- 3 = In/Out Actuator Connection
- 4 = Handset Connection

4.2 - Hard Wiring the Power Pack Connector

The following instructions outline the procedure for hardwiring the Power Pack connector to the control box. Please refer to the diagram above for the designated installation location and ensure that all wiring is securely connected and properly insulated.



WIRING THE CONNECTOR

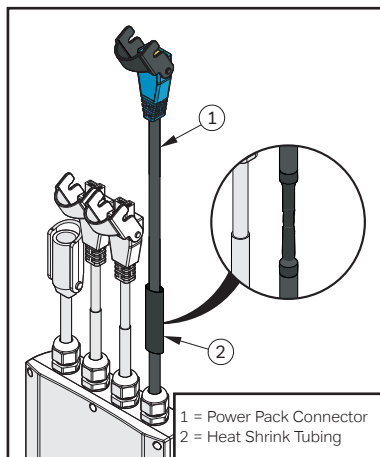
Before connecting the Power Pack connector to the Control Box, slide a piece of heat shrink tubing onto the Power Pack connector cable.

Next, prepare the cables by ensuring that approximately 10mm of wiring is exposed on both the Power Pack connector cable and the Control Box cable. If necessary, use wire strippers to remove the insulation to the required length.

Insert the stripped end of the black cable from the Power Pack connector cable into one side of a blue joining connector. Then, insert the corresponding black cable from the Control Box cable into the opposite side of the connector. Repeat this process for the red cables, using a separate blue joining connector.

Using a crimping tool, firmly secure each connector to ensure a strong electrical connection. Perform a gentle pull test on each cable to confirm that the connections are properly crimped and secure.

4. Wiring



ISOLATING THE WIRING

Position the heat shrink tubing over both connectors, ensuring complete coverage. Use a heat gun to carefully shrink the tubing until it securely encloses the connection, providing effective insulation and protection.

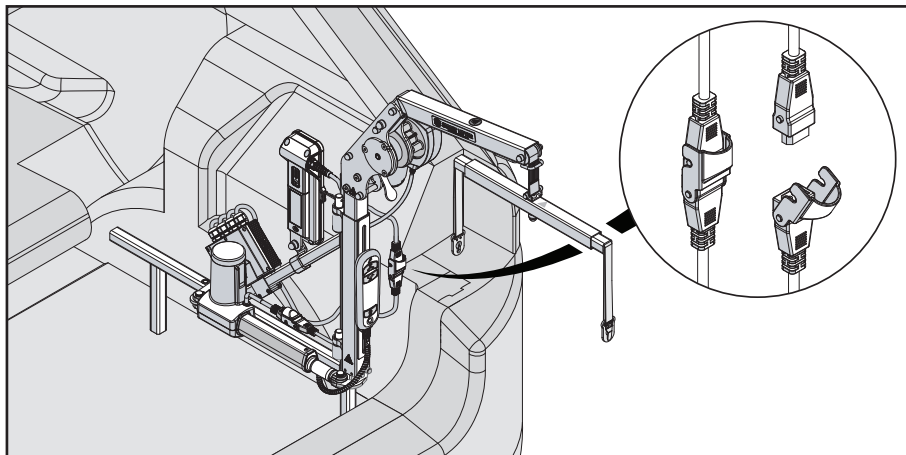
Conduct a final inspection to verify that all connections are secure and properly insulated. Once confirmed, power and test the system to ensure proper functionality.

Secure the Power Pack Connector cable to the diagonal strut of the A-Frame using cable ties, ensuring a stable and organized installation.

4.3 - Power Pack Wiring Instructions

CONNECTING THE POWER PACK

Connect the Smart Lifter Power Pack wiring to the control box as indicated in the provided diagram. Ensure the light blue connector is securely attached, and all connections are firm. Once complete, fasten the latch cover.



MANDATORY! Ensure that the Smart Lifter Power Pack is fully charged before first use.

Please complete all the required details below to maintain a record of the handover and submit it to the installation department.

Order Number: _____

Serial Number: _____

Date Supplied: _____

Details of the Supplier: _____

Name: _____

Signature: _____

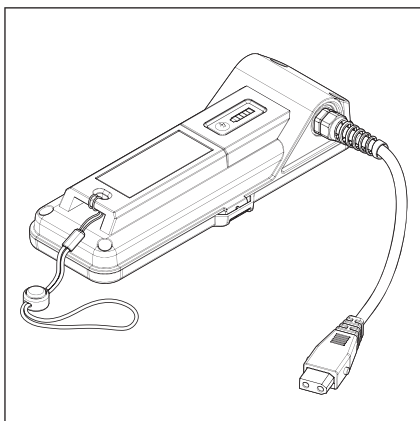
Installation/Handover Checklist

Installation (Tick once checked) -

- ☐ All fixings fully secured.
- ☐ Wiring properly connected and isolated.

Customer Handover (Tick when complete) -

- ☐ Conducted a basic safety briefing and provided guidance on locating relevant information in the User Manual.
- ☐ Provided instructions on checking the battery level and reviewed the procedure for monitoring and charging the battery.
- ☐ The customer has been informed that when only two bars remain on the Power Pack, it must be recharged.
- ☐ Provided instructions on properly attaching and removing the battery.
- ☐ Instructed the customer on the requirement to wear the wrist strap when transporting the Power Pack.
- ☐ Provided guidance on properly securing the wrist strap and inspecting it for wear.



Installer to retain this copy



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