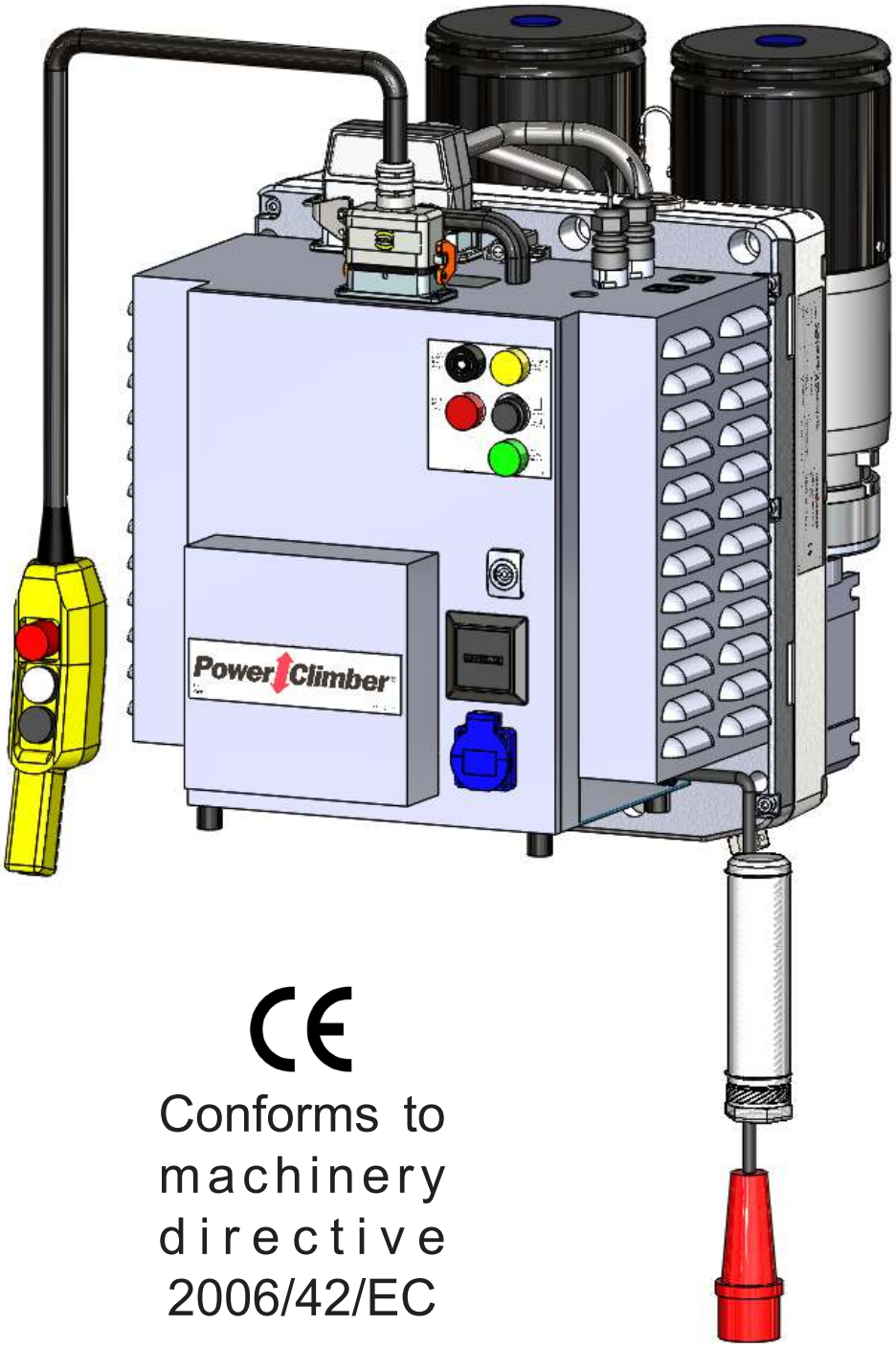
OPERATOR'S INSTRUCTIONS
UPPRO P2514 VFD 5-18 HOIST



CE

Conforms to machinery directive 2006/42/EC

Manufactured by: Power Climber® | Edisonstraße 22, D-27711 Osterholz-Scharmbeck, Germany |
Phone: +49 (0) 4791 964 07-0 | Fax: +49 (0) 4791 964 07-27 |
Email: globalsupport@powerclimber.com | Website: powerclimber.de

WARNING

- **All persons** operating this equipment must read and completely understand this manual.
- **All persons** must be thoroughly trained in the use of this equipment, its operational and safety features, and they must also be capable of carrying out the daily inspections.
- Only authorized persons shall operate this equipment.
- Any operation in violation of these instructions is at the **operator's own risk** and **may result in serious injuries.**
- Keep this manual with the hoist at all times.
- Use only spare parts and recommended steel wire rope from Power Climber®.
- It is the responsibility of the user to determine whether this hoist is suitable to be used in conjunction with any other equipment. The user must also determine that this hoist and other components used will be in strict conformity with governing regulations.

Table of Contents

1. ABOUT THIS MANUAL
   - A) Symbols Used in this Manual 4
   - B) Terms and Abbreviations 5
2. SAFETY
   - A) Safety Instructions 6
   - B) Hazard Warnings 8
3. WIRE ROPE
   - A) Wire Rope Terminations 9
   - B) Wire Rope Cautions 10
   - C) Wire Rope Inspection 11
4. THE POWER CLIMBER® UPPRO P2514 VFD 5-18 HOIST
   - A) Features of the Power Climber® UpPro P2514 VFD 5-18 Hoist 12
   - B) Optional Feature of the Power Climber® UpPro P2514 VFD 5-18 Hoist 13
   - C) Specifications of the Power Climber® UpPro P2514 VFD 5-18 Hoist 14
   - D) Parts of the Power Climber® UpPro P2514 VFD 5-18 Hoist 15
5. PREPARING TO USE THE HOIST
   - A) Electrical Supply 16
   - B) Installing Hoist onto Platform 16
6. REEVING
   - A) Suspension Wire Rope 17
7. OPERATING THE HOIST
   - A) Normal Operation 18
8. DAILY TESTING AND INSPECTION
   - A) Inspect after Previous Use 20
   - B) Logbook 21
   - C) Testing the Emergency Stop Button 21
   - D) Testing the Controlled Descent 22
9. DE-REEVING
   - A) Removing the Primary Suspension Wire Rope 22
10. HOIST MAINTENANCE
    - A) Regular Maintenance 23
    - B) Special Maintenance 23
11. STORAGE 23
12. TROUBLESHOOTING
    - A) Power to Platform is ON and **RED** Error Light is ON 24
    - B) Hoist does not Run and **RED** Error Light is OFF 24
    - C) Hoist Hums, Starts Slowly and is Sluggish and **YELLOW** Voltage Indicator Light is ON 24
    - D) Wire Rope will not Reeve 25
    - E) Motor runs Normally, but Hoist will not Raise Load 25
    - F) Hoist will NOT Raise or Lower Load and Sounder is Audible 25
    - G) Hoist does not Stop Immediately when the ↑UP or ↓DOWN Button is Released 26
    - H) You Hear Unusual Noises coming from the Hoist and YOU ARE IN THE AIR 26
    - I) You hear Unusual Noises coming from the Hoist and YOU ARE ON THE GROUND 26

1. ABOUT THIS MANUAL

Before using the Power Climber® UpPro P2514 VFD 5-18 VFD 5-18 CE Hoist, learn the procedures described in this manual. Any operation in violation of these instructions may result in bodily injury or death.

This manual is included with each Power Climber® UpPro P2514 VFD 5-18 VFD 5-18 CE Hoist. Additional copies are available from your hoist supplier. Keep a current copy of this manual with the hoist at all times. It is the duty of the employer to provide each operator with a copy of this manual. Power Climber® reserves the right to make changes or modifications to its hoists. Users of this equipment must request current operating information prior to using this equipment. Call your local hoist supplier for additional information.

The Power Climber® UpPro P2514 VFD 5-18 VFD 5-18 CE Hoist conforms to European Machinery Directive 2006/42/EC and ISO Standards EN 1808.2015, EN 60204-32:2009, and EN 12100:2010.

A) Symbols Used in this Manual

This manual includes symbols that denote information that is important for hazard avoidance. Read carefully and follow all instructions when you see these symbols.

Symbol	Term	Meaning
	STOP	Stop action and follow instructions before continuing.
	WARNING	Warns against possible immediate death or serious injury.
	CAUTION	Warns against possible injury.
	ELECTRICAL HAZARD	Warns against possible electrical shock hazard.
	READ	Must read this before performing any action that follows.
	NOTE/TIP	Remember and take what follows into account.

The following symbols found on some pages of this manual are used to categorize important tasks related to operation and maintenance of this hoist:

▲ = Inspect ● = Verify ■ = Perform process

B) Terms and Abbreviations

Systems refer to facilities into which the components described in these operating instructions are installed, e.g. service cabins, suspended access equipment, material handling equipment, etc.

Systems manufacturer (of suspended access equipment in terms of the EC Machinery Directive) refers to the entity that assembles a manriding hoisting device from individual components.

The **system operator** is the person/company responsible for correct operation.

The system operator is to appoint a **supervisor** who is responsible for the correct operation of the system on site. The supervisor is also authorized to issue instructions.

The **operator** is an individual appointed by the system operator who has received instructions concerning the tasks entrusted to him and the potential hazards of incorrect operation. The operator's knowledge and practical experience puts him in a position to perform operations safely using the requisite information. If the work is performed using SAE (see below), this person must be appropriately trained in working at heights.

The **cold climate version (CCV)** of a system can be operated at temperatures of up to -35°C.

SAE - Suspended Access Equipment

Users are operators and manufacturers

PAE (Personnel Access Equipment) is part of an SAE system that lifts persons and loads.

A **qualified person** is an appointed and appropriately trained person whose knowledge and practical experience puts them in the position to be able to perform specific work safely based on the requisite instructions. The qualified person must be familiar with the relevant national industrial safety regulations, accident prevention regulations, guidelines and generally accepted rules of engineering to the extent that they can appraise the safe working condition of the machine.

Temporary Suspended Access Equipment (**TSAE**) is SAE mounted onto a building or structure for a temporary period.

A **VFD** is a Variable Frequency Drive.

PPE - Personal Protection Equipment

Building Maintenance Units (**BMU**'s) are SAE intended to be permanently installed and dedicated to a specific building or structure.

2. SAFETY

A) Safety Instructions

WARNING

NEVER operate equipment that you do not understand. You may cause accidents, which may result in the injury or death of yourself or people around you. Know how to use this equipment and prevent accidents.

This operator's manual is not all-inclusive. It is impossible to anticipate every possible way this equipment may be used or all possible hazardous situations. It is very important that you determine for yourself whether it is safe to use the equipment. You must understand the operating characteristics of this hoist and how it operates in your application. You must be certain not to put yourself or others in danger, or cause damage to property or other persons. Call your hoist supplier if you have any questions concerning this equipment.

1. Read and understand this manual **BEFORE** using this equipment.
2. Setup and use must comply with Power Climber® instructions and local codes.
3. Only persons familiar with relevant accident prevention regulations, for example, "Hoists, Lifting and Hoisting Equipment" (DGUV Regulation 54) and "Safety Requirements of Suspended Access Equipment" (EN 1808), and who have received appropriate training and have read and understood these operating instructions may operate this equipment.
4. Use the "Troubleshooting" guide referenced in Section 12 of this manual to solve problems that may develop while using the hoist. Repairs must be made only by people trained and authorized to do so. **NEVER** service or repair the equipment while the unit is suspended (above ground level).

Operating the Hoist

5. The Power Climber® UpPro P2514 VFD 5-18 VFD 5-18 CE Hoist is NOT suitable for the following applications:
   - Operation in extreme weather conditions, corrosive surroundings, explosive environments, or in the immediate vicinity of strong magnetic fields;
   - Moving dangerous loads, such as molten metal, acids/bases, or radioactive substances;
   - On work platforms suspended from cranes;
   - Silo entry equipment;
   - Suspended access equipment designed for underground installation;
   - Suspended access used in confined places without taking necessary precautions.
6. The Power Climber® UpPro P2514 VFD 5-18 Hoist may only be operated when the ambient temperature is between -25° C and 70° C. CCV models can be operated when the ambient temperature gets down to -35° C.

7. Take extra care when operating the hoist in high winds. Consider stopping work or adding stabilization at wind speeds of 40 kph or more when working on a 2-line suspended platform. When working on a single-line platform, stabilization should be used in winds above 30 kph. Avoid carrying large panels of material that can act like a sail in high winds.
8. If you hear any strange noises, or if the hoist does not appear to work normally, stop using it immediately. Do not continue to use the equipment until it is repaired.
9. Do not remove any parts from the hoist without replacing them. Do not change or substitute any approved hoist parts for parts that do not meet manufacturer's specifications. Do not modify this hoist without prior approval from Power Climber®. Modifications can put you in danger if not done correctly. Making modifications can also void any manufacturer's warranty and make you liable for any damage.
10. All service related work must be performed by Power Climber®, or a workshop authorized by Power Climber®.
11. Maintain clearances and make sure no obstructions can interfere with vertical travel.

Suspended Scaffolds

12. The manufacturer of the suspended access equipment is responsible for installing limit switches on the Power Climber® UpPro P2514 VFD 5-18 Hoist. Different applications have different requirements for limit switches. The following table shows limit switch requirements for typical applications of the Power Climber® UpPro P2514 VFD 5-18 Hoist:

Application	Upper Limit Switch	Lower Limit Switch	Lift Emergency Limit Switch
BMU	Required	Required	Required
TSAE	Required	Required*	Optional

* Not required if the TSAE is mounted on the ground.

13. **WARNING!** Do not use suspended scaffolds unless:
    a. You are wearing a personal fall arrest system that meets or exceeds your application requirements.
    b. You have personally made sure that:
        i. the scaffolding support system or rigging is complete, properly assembled, counterweighted (or otherwise anchored), tied off, and not overloaded; and,
        ii. hoists and platforms are not overloaded.
    c. The wire rope is free of defects and is the size and type specified for the hoist;
    d. Guardrails and toe boards are properly installed;
    e. The main suspension wire rope is vertical.
14. Use approved PPE personnel harnesses, lanyards, rope grabs, and independent lifelines at all times. Attach the lifelines to a structural member of the building or structure, never to part of the rigging unless specifically designed for this purpose.
15. Comply with all CE safety codes and equipment instructions. Do not allow anyone under suspended equipment. If necessary, provide protection below the suspended equipment to prevent injury to people from falling objects. Use lanyards to secure tools and materials so they do not fall on personnel below.
16. Lock all electrical connections and support with strain relief devices.
17. Make sure that the electrical cord and wire rope are long enough to allow full travel of the work platform.

Wire Rope

18. Use only wire ropes approved by Power Climber®. Use only wire ropes that are in an undamaged, tangle-free condition.
19. Inspect the wire rope before rigging. Handle and inspect wire rope carefully during and after each job. Use protective gloves when handling wire rope. Do NOT lubricate the wire rope.
20. Do not use visibly worn, kinked, bird-caged, undersized, or damaged wire rope. Protect wire rope from sharp or abrasive edges of the building. Do not use wire rope that has been exposed to fire, excessive wear, corrosive atmosphere, chemicals, passage of electric current, or temperatures above 95° C. For additional wire rope cautions, refer to the wire rope section in Section 3.

Welding/Electrical Cautions

21. When welding from a suspended scaffold, provide proper electrical grounding for the hoist and ensure the platform is grounded to the structure.
22. Insulate wire rope 1.25 m above and below the platform. Insulate the wire rope at the suspension point and ensure that the wire rope cannot come in contact with the structure at any point along its length, including the tail line. Welding protection kits are available from Power Climber®.
23. Cover the hoist with an insulating material.
24. Avoid power lines. Make sure the platform or hand tools cannot swing or be blown within a minimum of 3 m of an electrical power line. Check your local codes for minimum distances. Never, under any circumstances, rig a platform above electrical power lines.

Corrosive/Explosive Environments

25. Never operate an electric hoist in an explosive atmosphere or around explosive organic vapors or dust.
26. Never use hoists and aluminum platforms around caustic materials, acids, or acid fumes. Use hoist covers when corrosive materials are present. Hoist covers are available from Power Climber®.

B) Hazard Warnings

The following is a list of potential hazards that may be encountered when working on a suspended scaffold. This list is not complete! It is provided to increase safety awareness on the job site.

Mechanical Hazards

- ► Crushing between the platform and the building or structure.
- ► Cutting or severing of body parts between moving machine parts.
- ► Loss of rigging stability because of one or more of the following:
  - ■ Insufficient counterweight or counterweights not properly secured;
  - ■ Inadequate mechanical strength;
  - ■ Platform becomes overloaded when it encounters an obstacle while being raised and the suspension wire rope breaks;

- Platform catches on overhang and tilts while being raised.
- Falling:
  - from the platform;
  - as a result of using a wire rope that is too short;
  - if the platform is not strong enough for the weight and breaks;
  - if wire rope or platform interconnections fail;
  - rigging failure.

► Hoist idling due to loss of traction.

► Damaged wire rope becoming jammed in the hoist.

WARNING

If the platform is suspended in the air and the hoist motor runs but the wire rope does not move through the hoist, **push the Emergency Stop Button immediately**! Damaged wire rope may be jammed inside the hoist. Any attempt to move the platform up or down could damage equipment or cause injury or death.

Electrical Hazards

► Failure of the electrical supply may delay travel of the platform.

► Control system failure can cause unwanted/unexpected movement of the platform.

► Improper power supply (voltage or frequency) may damage the hoist.

Environmental Hazards

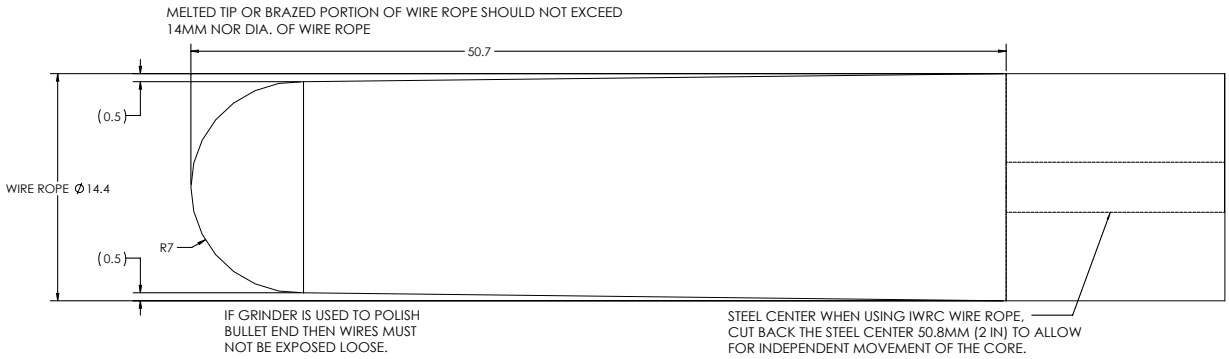
► Prepare for the effects of climate: heat/cold/ice/wind.

► Sandblasting and acid wash procedures may introduce special concerns. These procedures may adversely affect the immediate health of an operator and may pose serious risks to the hoist and other equipment being used.

3. WIRE ROPE

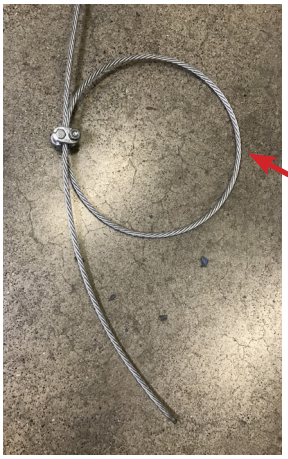
A) Wire Rope Terminations

1. To prepare the end of IWRC wire rope for insertion, cut back the steel center at least 51 mm to allow for independent movement of the core. Braze and rough shape the end of the wire rope to form a smooth, tapered, bullet shape no more than 6.5 mm long. Do NOT cool the end of the hot wire rope in water or oil as this makes the end brittle and may cause it to break off. Oil the bullet *after it cools* to prevent rusting. Refer to ”Wire Rope Inspection” on Page 11 for replacement criteria.



14.4 mm Bullet Dimensions

2. Use a heavy-duty thimble for the primary suspension wire rope and follow the manufacturer's requirements for termination of the wire rope hardware that you are using.
3. In situations where it is not possible to lower the platform to the ground, secure the tail line with a suspension loop, as shown below, to prevent the platform from sliding off the suspension ropes. Before rigging in such a situation, consult a safety professional.



Tail line with suspension loop

B) Wire Rope Cautions

1. Wire rope stretches when loaded, which reduces the diameter. Wire rope begins to wear the moment it is used. Regularly inspect wire rope to be sure it is in good condition.
2. Do NOT expose the wire rope to fire, temperatures above 95° C, or passage of electrical current. Such exposure will damage the wire rope and make it unsafe.
3. Acids will corrode and reduce the strength of both inner and outer stands. If wire rope has been exposed to corrosive chemicals, it MUST be discarded upon completion of the project, or sooner if any damage is evident. Do NOT save wire rope that has been in contact with corrosive substances. When in doubt, replace the wire rope.

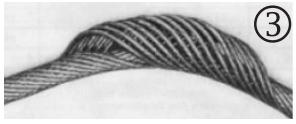
C) Wire Rope Inspection

The need for replacement of suspension wire ropes shall be determined by regular inspection and shall be based on the condition of the wire rope inspected. Wire rope in active service should be visually inspected once every working day. A thorough inspection shall be made once a month, or before each use if the suspension wire ropes have been inactive for 30 days or longer and are subsequently placed into service. Dated and signed monthly reports indicating the condition of the ropes found during inspections must be kept.

Any of the following conditions, or combination of conditions, shall be considered sufficient reason for the removal of the suspension wire rope from service:

► Wire rope with one or more of the following defects shall be replaced immediately:

- Whenever there is severe corrosion. Any development of slight corrosion shall be noted and watched closely.
- Whenever there are broken wires, such as:
  - When there is more than one valley break. A valley break is a wire break occurring in the valley between two adjacent strands.
  - When there are six (6) randomly distributed broken wires in one rope lay or three (3) broken wires in one strand in one rope lay. (A rope lay is the length along the rope in which one strand makes a complete revolution around the rope.)
  - More than 10 wires are broken on a length of 420 mm.
- Whenever there are broken wires in the vicinity of attachments. If this condition is localized in an operating rope, the section in question may be eliminated by making a new attachment. This may be done instead of replacing the entire rope.
- Whenever there is abrasion, scrubbing, flattening, or peening that causes loss of more than one third of the original diameter of the outside wires.
- Whenever there are severe kinks, crushing, bird caging, or other damage resulting in distortion of the rope structure.
- Whenever there is evidence of any heat damage resulting from a torch or caused by contact with electrical wires.
- Whenever the reduction from the nominal diameter of the wire rope is more than 0.5 mm for the specified DWH 14 mm wire rope.
- Damage due to heat;
- Reduction of the nominal diameter by more than 10%;
- Kinking (see ① below), crushing (see ② below), bird caging (see ③ below) or any other distortion of the wire rope structure.



► Always inspect the wire rope termination and refer to the manufacturer's inspection procedures.

4. THE POWER CLIMBER® UPPRO P2514 VFD 5-18 HOIST

The Power Climber® UpPro P2514 VFD 5-18 Hoist is used to raise, support, and lower suspended scaffolds, building maintenance units, and work cages on, or in, buildings and structures.

A) Features of the Power Climber® UpPro P2514 VFD 5-18 Hoist

Feature	Function	Benefit
Operating range 400V 50 Hz unit, +10%/-15%, range of 340V - 440V	• Proven reliable performance from 340 to 440 run volts • Tested in 75 min. continuous run tests	• Reduces service calls • Extends electric component life • Eliminates power-induced down time • Allows longer Power Cord drops.
Spring and Dual Roller Traction	• Applies constant force to the wire rope	• Allows 2500Kg/5500 Lbs. capacity.
Controlled Descent	• Levers operate brake manually for controlled descent during power failure	• Allows self-rescue of workers and platforms
Remote Operation	• Pendant control • Pendant Control with Emergency stop button	• Allows greater visibility of surroundings during operation • Full power cutoff emergency stop
Low Voltage Indicator	• Indicates whether the hoist is receiving adequate power	• Alerts workers to poor site conditions. • With VFD, hoist will still function at reduced speed
Hour Meter	• Indicates hours of hoist operation	• Helps determine hoist service intervals
Variable Speeds	• 2000 kg load: 5, 9, 12, and 18 m/min • 2500 kg load: 5, 9, and 12 m/min	• Allows faster load movement when necessary • Facilitates load positioning

Continued on next page ☞

Features of the Power Climber® UpPro P2514 VFD 5-18 Hoist, *continued*

Feature	Function	Benefit
Built-in Overload with Sounder	• Deactivates UP button so that only downward operation is possible • Alerts operator to loads greater than the rated working load or an obstruction above	• Reduces damage to equipment from excess loads • Sounder encourages immediate attention to overload situation
Variable Speeds	• 2000 kg load: 5, 9, 12, and 18 m/min • 2500 kg load: 5, 9, and 12 m/min	• Allows faster movement of platform increasing site productivity • Speed Adjustability can allow optimization, matching to the needs of the jobsite
Top Limit Switch Interface	• A top limit switch can be attached to the control unit	• Meets a requirement of EN 1808

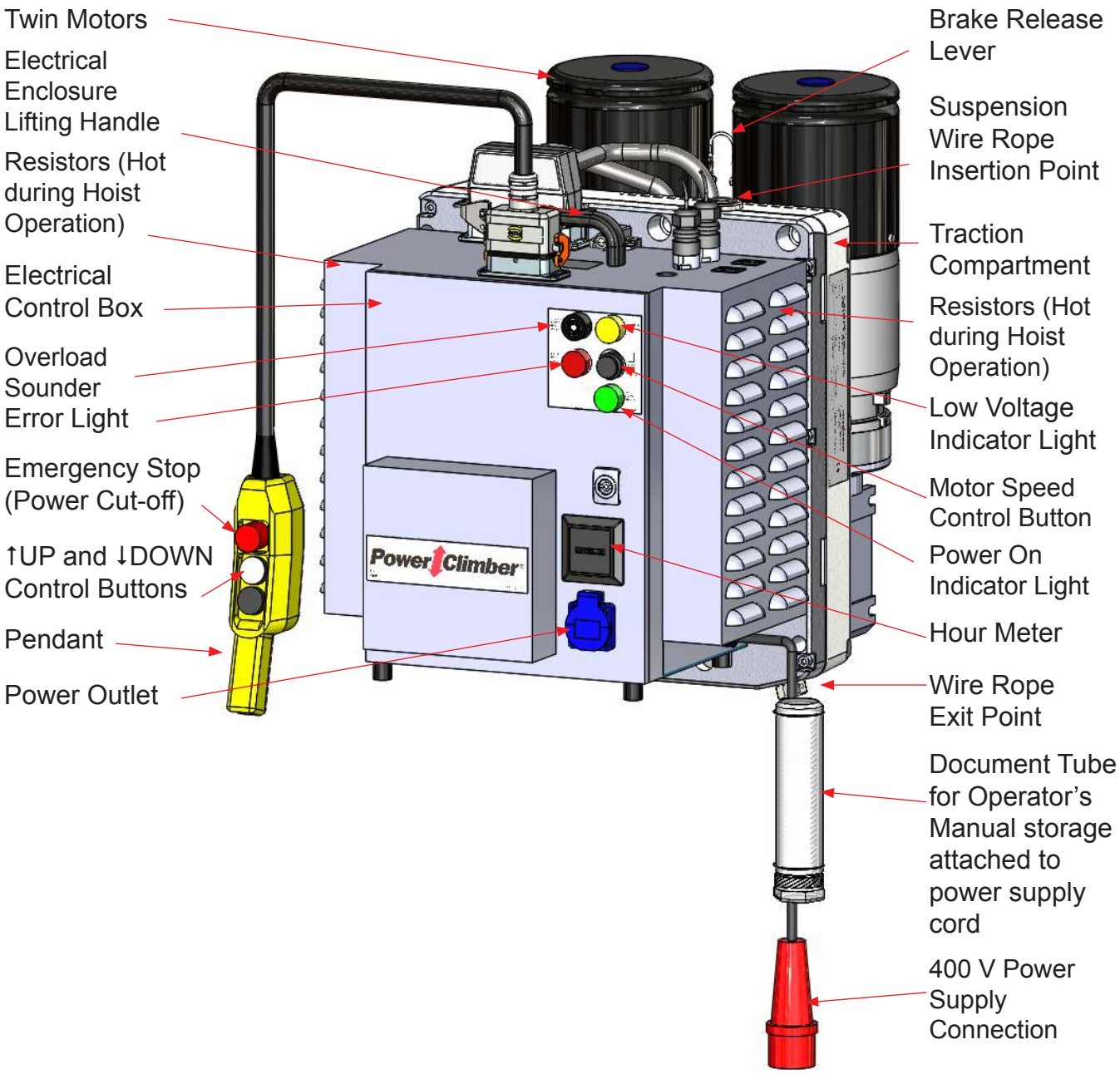
B) Optional Feature of the Power Climber® UpPro P2514 VFD 5-18 Hoist

Feature	Function	Benefit
Optional Cart or Bax	• Ergonomic transport of hoist to work location	• Makes installation easier and safer

C) Specifications of the Power Climber® UpPro P2514 VFD 5-18 Hoist

HOIST / ELEMENT	UpPro P2514 VFD 5-18 Hoist
Lifting Speeds	*2000 kg load:* 5, 9, 12, & 18 m/min *2500 kg load:* 5, 9, & 12 m/min
Maximum Working Load Limit (WLL)	2,500 Kg/ 5,500 Lbs.
Power Supply	400V + 10%/-15%; 50 Hz; 3 Phase (340V - 440V)
Amperage at WLL	16 Amps
Hoist Weight	verify correct weight for CE vs UL. 1) CE Unit: Hoist weight 125kg (275 lbs.); Contol unit 31Kg (68 lbs.)
Drive Type	Variable Frequency Drive
Wire Rope Diameter	CE: 14 mm / 9/16”
Wire Rope Specifications	Taurus 6 WS-V (special); meets EN 12385-4; Zinc-plated; Right Lay; Nominal Resistance 2450 N/mm^2; Min Breaking Strength 224.25 kN approximately 1.01 kg/m. User must verify that the wire rope used meets or exceeds applicable codes for breaking strength safety factor.

D) Parts of the Power Climber® UpPro P2514 VFD 5-18 Hoist



5. PREPARING TO USE THE HOIST

A) Electrical Supply

For trouble-free operation of the Power Climber® UpPro P2514 VFD 5-18 Hoist, the electrical supply must have sufficient capacity and the circuit breakers must be properly rated. If startup is sluggish, have a certified electrician determine the voltage at the female end of the electrical cable coming from the power source. Voltage must be 340-440 VAC.

If the voltage is less than 340 VAC at the hoist connection, do the following:

- Install a 3-phase booster transformer at the power source;
- Select the electrical supply cable based on the hoist's amperage rating, which is 16 Amps;
- Use separate but identical cables for each hoist;
- In applications where two hoists are used in tandem, do NOT start both hoists at the same time to ensure better hoist performance; and,
- Maintain a level platform.

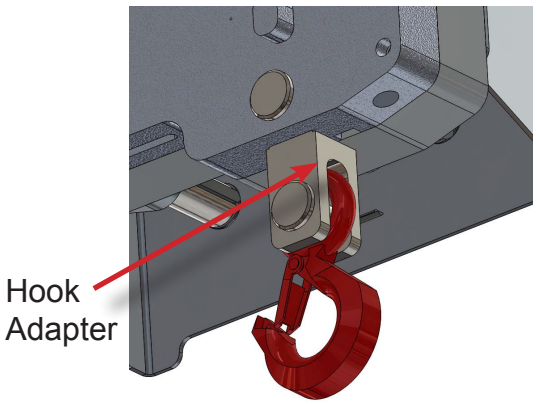
B) Installing Hoist onto Platform

Follow the manufacturer's instructions for platform assembly.

Lift the hoist into position under power.

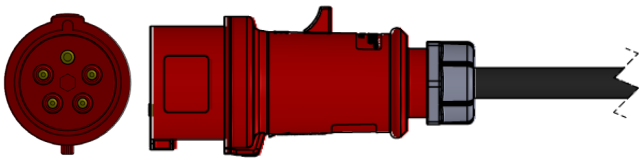
NOTE: The hoist MUST be oriented so that the suspension wire rope enters the wire rope inlet on the top of the traction compartment in a straight line that deviates no more than 2° from vertical.

Attach hook to hook adapter.



Connect the hoist to the power supply.

The power indicator light will come on when the hoist receives power.



Pin View and Side View of 400 V Hoist Power Supply Connector

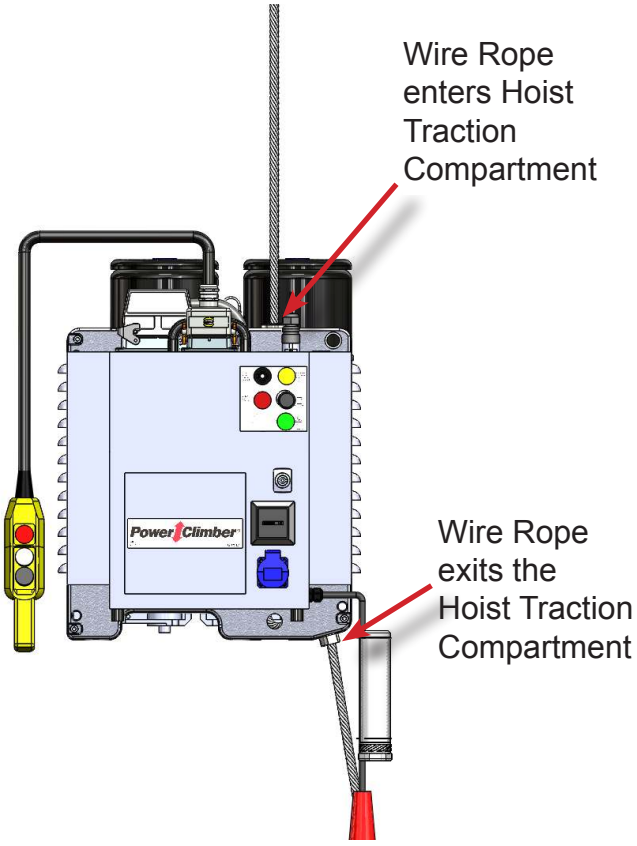
▲ = Inspect ● = Verify ■ = Perform process

6. REEVING

A) Suspension Wire Rope

Push the suspension wire rope through the wire rope inlet of the traction compartment.

When you cannot push the wire rope into the hoist's traction compartment any further, operate the hoist in the ↑UP direction until the wire rope exits from the bottom of the hoist's traction compartment.



▲ = Inspect ● = Verify ■ = Perform process

7. OPERATING THE HOIST

WARNING

BEFORE operating this hoist, you must understand and follow the instructions in this manual. You must be properly trained, physically fit and authorized to operate the hoist. Failure to comply with these instructions could result in serious injury or death.

- ► **DO NOT OPERATE THE HOIST IF** you hear unusual noises.
- ► **DO NOT OPERATE THE HOIST IF** adjustments or repairs seem necessary.
- ► **DO NOT OPERATE THE HOIST IF** any warning, operating, or capacity instructions are unclear, missing, illegible, or damaged.
- ► Report any problems to your supervisor and also notify the next operator when changing shifts. Tag the hoist "**DO NOT USE UNTIL REPAIRED**".
- ► NEVER operate an electric hoist or any electrical equipment in an explosive atmosphere. Explosive atmospheres exist around refineries, chemical plants, grain elevators, distilleries, inside silos and mines or around coal handling equipment. This is not a complete list! Consult an expert if you are in doubt about the safety of your immediate surroundings.

A) Normal Operation

Switch the control unit on by turning the red emergency stop button in the clockwise direction until it pops out. The **GREEN** Power On Indicator Light on the front of the electrical box comes on.

For travel in the ↑UP direction, push in the ↑UP operation button.

For travel in the ↓DOWN direction, push in the ↓DOWN operation button.

NOTE: Both buttons are spring-loaded and will return to the OFF position and apply the brake when released. **If the hoist does not immediately stop the platform, press the emergency stop button. Unplug the power supply cable. Contact your supervisor.**

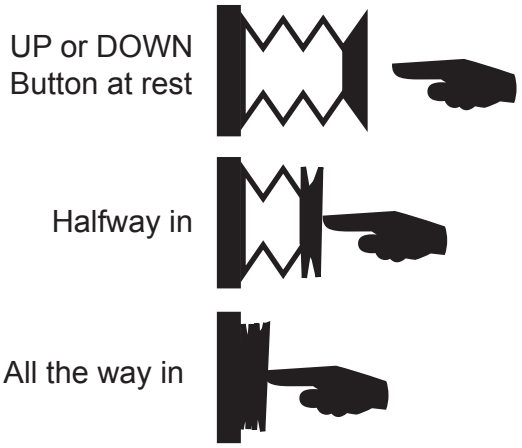
▲ = Inspect ● = Verify ■ = Perform process

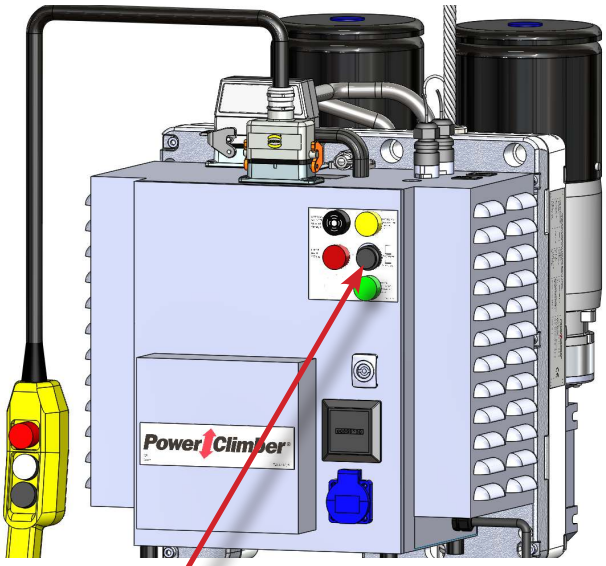
The ↑UP/↓DOWN buttons on the pendant have two pressure points. The first pressure point is for the slower speed. The second pressure point is for the faster speed:

- When lifting loads of 2000 kg or less, push the ↑UP button halfway in for a lifting speed of 5 m/min. Push the ↑UP button all the way in for 12 m/min. To access higher speed capability, push the black Motor Speed Control Button on the front of the electrical control box and then push the ↑UP button halfway in for 9 m/min, and all the way in for 18 m/min.

- When lifting loads of up to 2500 kg, push the ↑UP button halfway in for a lifting speed of 5 m/min. Push the ↑UP button all the way in for 12 m/min. For a lifting speed of 9 m/min, push the black Motor Speed Control Button on the front of the electrical control box and then push the ↑UP button.

  NOTE: A lifting speed of 18 m/min is not possible when raising loads greater than 2000 kg. If this is attempted, the low voltage indicator will light up and the hoist will the hoist will travel at 5 m/min.





▲ = Inspect ● = Verify ■ = Perform process

8. DAILY TESTING AND INSPECTION

WARNING

Perform all daily tests to ensure correct operation! Do NOT use the hoist for lifting until it has passed all daily tests.

The following tests must be performed at the start of each work shift. If the hoist fails any test, **DO NOT USE THE HOIST UNTIL IT IS REPAIRED**. Refer to "Parts of the Power Climber® UpPro P2514 VFD 5-18 Hoist" on Page 15in Section 4c to identify components. All tests must be performed at, or near, ground level.

A) Inspect after Previous Use

▲ Before operating the hoist, inspect the following:

- ◆ Wire rope
- ◆ Power supply cable
- ◆ Rigging
- ◆ Platform
- ◆ Hoist
- ◆ Emergency Stop
- ◆ Manual Descent
- ◆ Limit Switch, if applicable

● Verify that all parts are present, in proper working order, and are not damaged.

● Verify bolts, nuts, and clamps are well secured.

● Verify that the hoist is secured to the stirrup with SAE Grade 5 fasteners and lock nuts that are properly installed. If the hoist is mounted by the traction compartment, verify that at least two M10 bolts are used.

● Verify that hoistway is clear of obstructions.

● With pendant connected to control unit, press the emergency stop button on the pendant. Verify that the **RED** error light comes on. Reset the emergency stop button by turning it clockwise and verify that the **RED** error light goes off.

▲ When using the hoist in a dirty environment that contains epoxy, paint, cement, sand blast residue, or corrosive material, inspect the operation of the secondary overspeed brake several times a day. Protective hoist covers are recommended in these environments. Contact your hoist supplier.

▲ = Inspect ● = Verify ■ = Perform process

B) Logbook

Under EN 1808:2015, the system operator is required to maintain a logbook that includes the following information:

- ► Name of the person responsible for the hoist/suspended access equipment.
- ► Name(s) of the operator(s) and date(s) of use.
- ► Serial numbers of each hoist and safety device in use.
- ► Wire rope specifications and hours in use.
- ► Reportable accidents and actions taken.
- ► Results and dates of:
  - ■ Safety checks prior to first use,
  - ■ Weekly checks,
  - ■ Annual checks,
  - ■ General overhauls, and
  - ■ Repairs

In the event of a change in system ownership, the logbook must be given to the successor, who is then responsible for future entries. The successor determines whether to continue the original logbook or start a new one. New logbooks must include a reference and location of the original logbook.

C) Testing the Emergency Stop Button

■ Conduct a test run with the hoist's maximum working load (2500Kg/ 5500lbs.).

■ Press the red emergency stop button while running the hoist in either direction.

● Once the emergency stop button has been pressed, the hoist should not move at all and the **RED** error light on the front of the electrical box should light up. If the hoist keeps running or the error light does not come on, the hoist must be repaired.

■ ● To reset the emergency stop button, turn the button clockwise until it pops out. The **RED** error light should go off.

Emergency Stop Button

▲ = Inspect ● = Verify ■ = Perform process

D) Testing the Controlled Descent

☐ Raise the platform approximately 1 meter.

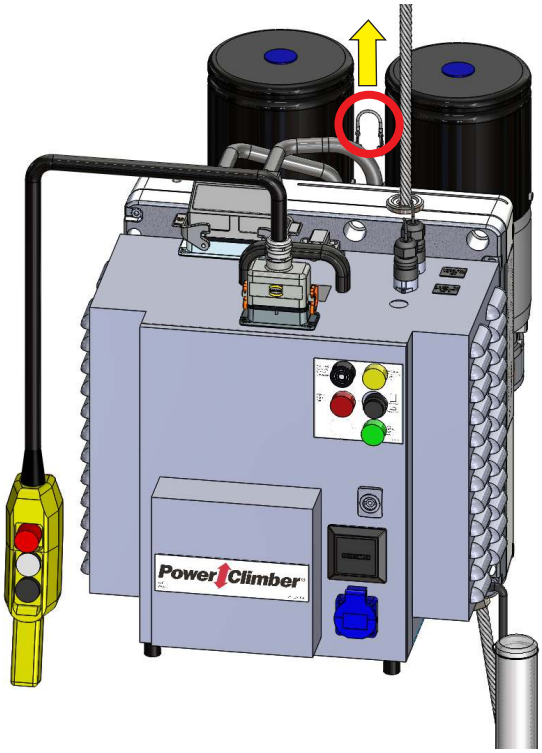
☐ Disconnect the power supply.

☐ Reach between the two motors and pull up on the brake release.

NOTE: The brake release opens the motor brakes, which will allows the platform to be lowered in a controlled descent. The platform will move quickly.

WARNING

If the overspeed brake trips while testing the controlled descent, the controlled descent system is not working properly and **THE HOIST SHOULD NOT BE USED**.



9. DE-REEVING

A) Removing the Primary Suspension Wire Rope

For hoists equipped with a secondary wire rope, the secondary wire rope must be removed before the primary wire rope is removed.

WARNING

To prevent platform from tipping and avoid injuries, ensure that the platform is properly supported on a flat, stable surface before putting slack on the primary suspension wire rope.

● Verify that platform is supported by a flat, stable surface before putting slack on the primary suspension wire rope.

☐ Push in the ↓DOWN operation button to wind the primary suspension wire rope out of the hoist. When the wire rope stops moving, pull the wire rope upward out of the hoist.

▲ = Inspect ● = Verify ☐ = Perform process

10. HOIST MAINTENANCE

A) Regular Maintenance

The hoist should be returned to a certified Power Climber® service center for periodic maintenance at least once a year from the date it was placed into service, or after 250 working hours since last maintenance.

More frequent service may be required if the hoist is subjected to dirty environments.

B) Special Maintenance

If the hoist fails any inspection or operation, it should be returned for service.

11. STORAGE

✳ When not in use, store hoist and work platform in such a way as to protect from unauthorized use. Always unplug power cord when not in use and equipment is left unattended.

✳ Store the Power Climber® UpPro P2514 VFD 5-18 Hoist in an indoor facility where the ambient temperature is between -40° C and 70° C and relative humidity does not exceed 60%. Guard against temperature fluctuations of more than 30° over the course of 24 hours. Protect the hoist from dust and dirt, but do NOT pack the hoist in an airtight container.

✳ Do NOT store the hoist for long periods in areas where the brake or other parts may become corroded, such as in salty coastal air or enclosed areas that contain corrosive vapors. Hoist functionality cannot be guaranteed under such circumstances.

= Inspect = Verify = Perform process

12. TROUBLESHOOTING

STOP! Read **ALL** troubleshooting guidelines before attempting any solution. Consult your supervisor to correct problems.

Problem	Possible Cause and Solution
A) Power to Platform is ON and RED Error Light is ON	● Verify pendant is properly connected. ● Verify emergency stop button is in the reset position, that is, pulled out.
B) Hoist does not Run and RED Error Light is OFF	● Power at junction box is off. ● Circuit breaker is tripped. ● Not enough power is being supplied to hoist. ● ■ Plugs are not connected; check hoist, yoke, power cord, and power source. ● Damaged electrical cord. ● ▲ Error light is burnt out. ● ■ If the motor is hot, thermal overload protection may have been tripped. Allow motor to cool and see if it resets. This may take 30 minutes or more. ● Determine if overspeed device has been activated.
C) Hoist Hums, Starts Slowly and is Sluggish and YELLOW Voltage Indicator Light is ON	● ■ Check run voltage. If not correct (see “Operating range” on Page 12in section 4a), do any or all of the following: ► Run separate power supply cords for each hoist. ► Use shorter power supply cords. ► Use short power supply cord with larger wires. ► Add a booster transformer at the power source.

More troubleshooting solutions on next page ☞

▲ = Inspect ● = Verify ■ = Perform process

Problem	Possible Cause and Solution
D) Wire Rope will not Reeve	Increase hand pressure on the wire rope while pressing the ↑UP control button. Take the wire rope out, rotate it 180° and put it back into the hoist while pressing the ↑UP control button. Poor bullet: prepare new end. Refer to the wire rope section in Section 3a. End of wire rope is bent or kinked: prepare new end. Dirt or other material is obstructing the rope inside the hoist.
E) Motor runs Normally, but Hoist will not Raise Load	Make sure the bullet end of the wire rope has come out of the wire rope exit guide. Inspect the wire rope for damage or wear. Replace if necessary. **WARNING! WIRE ROPE MAY BE JAMMED. DO NOT OPERATE HOIST. CALL YOUR SUPERVISOR.**
F) Hoist will NOT Raise or Lower Load and Sounder is Audible	Verify that the hoistway above is clear and that there are no overhead obstructions. Verify that load is no greater than the rated capacity of hoist (2,500 kg). Reduce load if necessary. Push in the emergency stop button on the pendant and wait until the sounder is no longer audible. Switch the unit on again by turning the **RED** emergency stop button clockwise until it pops out.

More troubleshooting solutions on next page ☞

▲ = Inspect ● = Verify ■ = Perform process

Problem	Possible Cause and Solution
G) HOIST DOES NOT STOP IMMEDIATELY WHEN THE ↑UP OR ↓DOWN BUTTON IS RELEASED	■ Push the “Emergency Stop button” on the pendant. ■ Call your supervisor. ■ Return the hoist to a certified Power Climber® service center for servicing.
H) YOU HEAR UNUSUAL NOISES COMING FROM THE HOIST AND YOU ARE IN THE AIR	**WARNING! WIRE ROPE MAY BE JAMMED. DO NOT OPERATE. ANY ATTEMPT TO OPERATE THE HOIST MAY CAUSE SERIOUS INJURY OR DEATH.** ■ Push the emergency stop button. ■ Push the overspeed brake test button and wait to be rescued. ■ Unplug the hoist from the power cord. ■ Call your supervisor. ■ Return the hoist to a certified Power Climber® service center for servicing.
I) YOU HEAR UNUSUAL NOISES COMING FROM THE HOIST AND YOU ARE ON THE GROUND	**WARNING! WIRE ROPE MAY BE JAMMED. DO NOT OPERATE.** ■● Check for damaged wire rope and replace as necessary. ■● Check for dirt on the wire rope and clean/lubricate as necessary. ■● Check the hoist for visible signs of damage. ■ Call your supervisor. ■ Return the hoist to a certified Power Climber® service center for servicing.

▲ = Inspect ● = Verify ■ = Perform process

Daily Inspection Checklist

WARNING!

Perform all daily test to ensure correct operation! Do NOT use the hoist for lifting loads until it has passed all daily tests. If the hoist fails any test do NOT use the hoist until it is repaired.

	Part/Function	Check for
1	**Visual Inspection**	*Verify all parts of the system are present, in proper working, order and undamaged.* ✓ Wire rope. ✓ Rigging. ✓ Platform. ✓ Power Supply Cable. ✓ Limit Switch(es), if applicable. ✓ NO damaged, loose, or missing parts. ✓ Hoistway clear of obstructions.
2	**Emergency Stop**	*Conduct a test run with the heaviest working load available (maximum 2500 kg). Press Emergency Stop Button.* ✓ Hoist stops immediately. ✓ UP and DOWN Buttons disabled. ✓ **RED** Error Light comes on. *Reset Emergency Stop Button.*
3	**Manual Descent**	*Raise the platform approximately 1 meter and stop. Disconnect the power supply. Pull up the Controlled Descent Loop (between the two motors).* ✓ The platform descends at a slow, controlled speed. ✓ The Overspeed does NOT trip.
4	**Log Book**	*Update EN 1808:2015 Log Book.* ✓ Record results of each Daily Inspection. ✓ Record Wire Rope hours in use.

EC Declaration of Conformity in Accordance with Annex II A of Machinery Directive 2006/42/EC

Manufacturer: Power Climber BVBA
Edisonstraße 22
27711 Osterholz-Scharmbeck
Germany

We hereby declare that the product produced in series described in detail in the following:

Description: Manriding-hoist
Model: P508, P509, P809, P1010
Serial number: 600000 – 624999

complies with all the relevant requirements of Machinery Directive 2006/42/EC, Directive 2014/30/EU, and any amendments valid at the time of this declaration.

Harmonized standards applied:

EN 1808:20155-08 Safety requirements for suspended access equipment
EN 60204-32:2009 Safety of machinery - Electrical equipment of machines, Part 32

The product complies with the type-tested model that was tested and certified in a type test performed by the notified body with the ID No. 0400 (LIFTINSTITUUT B.V.).

Authorized representative for compiling technical documents:
Andretzke, Jonas

Town/Date: Seattle, 20. November 2017
Name: Vishnu Irigireddy
Function: Vice President of Global Engineering

Signature