BUSS®



PA-lift

The ultimate push around scissor lift

INSTRUCTION HANDBOOK
(ORIGINAL INSTRUCTIONS)







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Section 1 - Description

1.1 Introduction

This Instruction Handbook provides information on the safe operation of the BoSS PA-lift, a one person push around scissor lift. Before operating the BoSS PA-lift, you must ensure that you have been adequately trained in its use, and have read and fully understood this Instruction Handbook, paying particular attention to the Safety Rules in Section 3.

Additional copies of this Instruction Handbook may also be obtained from the manufacturer; please see the contact details on the back cover. The Instruction Handbook is also available to download from the manufacturer's website at www.bosspoweredaccess.com.

The information contained in this Instruction Handbook is based on the latest product information at the time of publication. The manufacturer operates a policy of continuous product improvement and reserves the right to make product changes at any time without notice.

1.2 Characteristics & description

The BoSS PA-lift is a one person push around scissor lift and includes the following features as standard:

- Automatic braking on fixed castors
- Foot operated click-on brakes on swivel castors
- Self-closing gate with latch and transit gate lock
- Slip-resistant deck incorporating 6kN(0.67tonf) rated harness restraint lanyard anchorage
- Safety and usage instructions mounted on guardrail
- Toolbox with tray mounted on guardrail housing charging cable(s) and guardrail tools
- Platform controller with; function enable, up and down buttons, emergency stop, 5V USB charging port, tilt and overload warning lights
- Control unit with integrated tilt sensor
- Send machine diagnostics via smartphone
- Tilt and overload warning lights, alarms and interlocks
- Warning lights and alarm on ascent/descent
- Armguard safety cut-out on descent (pre-programed to 3 seconds)
- Overhead obstruction detection with interlock (this acts as an aid to the operator only, and is no replacement for the operator looking above for overhead obstructions as they raise the platform)
- Dual function battery charge level and charging indicator on chassis
- Low battery protection
- Raise and lower toggle switch mounted on chassis for use in an emergency and during maintenance
- Emergency stop on chassis
- Single stage non-powered emergency descent
- Fail-safe chock for deployment during maintenance
- Anti-static strip
- Forklift pockets for lifting, hoisting, and strapping during transit
- Winching eye
- Built-in impact protection to help protect internal finishes
- Building Information Modelling (BIM) files available for download

There is also a Confined Space Guardrail, Main Guardrail Anti-Climb Guard Set and Confined Space Guardrail Anti-Climb Guard Set, available as accessories.

1.3 Intended use

The BoSS PA-lift has been designed to comply with the safety requirements of the European Machinery, Low Voltage and Electromagnetic Compatibility Directives and in accordance with EN 280:2013+A1:2015 Mobile Elevating Work Platforms - Design calculations - Stability criteria - Construction - Safety - Examinations and tests, and UKCA.

The BoSS PA-lift is a Group A Type 1 MEWP intended to lift one person (plus essential tools and materials) to enable work to be undertaken at height. The BoSS PA-lift has been designed for indoor use only, and must be used on level ground which is able to support the weight of the machine and its maximum rated load (capacity).

The BoSS PA-lift is designed for a multitude of tasks including building and construction, particularly fit and strip out, shop fitting, painting and decorating, general maintenance, cleaning, as well as facilities management. The machine is used on construction sites and in hospitals, schools, airports, shopping centres, retail outlets, transport environments, factories, and offices.

WARNING

The operator must obtain the guidance and written approval from the manufacturer in the event of any special working methods or conditions which are outside those specified in this section.

1.4 Selection and minimum attributes of operators

Personnel operating a BoSS PA-lift should have either been selected, trained and authorised to do so, or be undergoing formal training under supervision. ISO 18878 gives details of the requirements for the training of MEWP operators. Records of training and experience of personnel should be consulted to assist in the selection of suitable personnel.

Personnel should be instructed not to work under the influence of alcohol, drugs, or other impairment to efficiency. Personnel should also be assessed as to their physical ability to undertake the appointed tasks. The BoSS PA-lift operator should:

- 1. be physically fit.
- 2. be comfortable working at height when taken up in the work platform of a MEWP.
- 3. have a responsible attitude.
- 4. demonstrate an ability to learn.
- 5. be able to communicate clearly with other personnel on site.
- 6. be able to demonstrate understanding of relevant health and safety regulations.
- 7. be able to demonstrate understanding of accident prevention and control.
- 8. be able to demonstrate that they can work safely at height.
- 9. be able to demonstrate understanding of the need for, plus correct use and maintenance of, personal protective equipment.
- 10. operate the BoSS PA-lift machine safely and manoeuvre the machine as required to correctly position and carry out the tasks in a correct and proper manner.
- **11.** be able to identify and avoid foreseeable hazards plus recognise unsafe practices and developing situations.
- 12. carry out daily pre-use checks.

WARNING

Operators of the BoSS PA-lift must be competent to do so, and operation by untrained or inadequately trained operators may result in serious injury or death. Any operator should have completed the Push Around Vertical (PAV) course which is offered by IPAF-approved training centres.

1.4 Selection and minimum attributes of operators/continued

In addition to the Operator of the BoSS PA-lift machine, the Site Surveyor and Planner plus the machine Demonstrator should be competent to fulfil these roles as specified in the Safe Use of MEWP's - Code of Practice sections 7.2.6 and 7.2.7 respectively.

When planning the job, the Site Surveyor and Planner should work through the following stages:

- 1. Identify the task to be undertaken.
- 2. Select an appropriate MEWP.
- 3. Identify the hazards associated with the task.
- 4. Carry out a risk assessment.
- 5. Identify control measures.
- 6. Develop the method to be used.
- 7. Record the planning in a Method Statement (including any contingency activities for personnel rescue).
- 8. Communicate the plan to all persons involved.
- Review the plan before the job starts and incorporate any changing circumstances.

1.5 Modifications

No modifications shall be made to any BoSS PA-lift unless the manufacturer has given full written approval. If in doubt, please contact the manufacturer for advice:

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1.6 Terminology



1.6 Terminology/continued

- 1 Toolbox with tool tray
- 2 Forklift pockets for lifting, hoisting and strapping during transit
- 3 100-240V AC charging point (cable(s) in toolbox)
- 4 Circuit breaker (press to reset)
- Toggle switch to raise and lower the work platform (for emergency and maintenance only)
- 6 Key switch PLATFORM/OFF/ CHASSIS (spring loaded)
- 7 Dual function battery charge level and charging indicator
- 8 Hour meter
- 9 Emergency stop
- 10 Step up to platform
- 11 Fixed castors with automatic braking on platform ascent
- Swivel castors with pedal operated brakes
- Guardrails with grab handle at each side
- 14 Work platform
- 15 Scissor

- 16 Hydraulic cylinder
- 17 Alarm for power on, ascent, descent, tilt and overload
- 18 Maintenance chock
- 19 Chassis
- Warning lights which flash on platform ascent and descent
- 21 Winching eye
- 22 Platform controller
- 23 Instruction Handbook document holder
- 24 Self-closing gate with locking latch and transit gate lock
- 25 Slip-resistant deck incorporating 6kN(0.67tonf) rated restraint harness lanyard anchorage
- 26 Anti-static earthing strip
- 27 Emergency lowering pull handle
- Overhead obstruction proximity sensor (this acts as an aid for the identification of overhead obstructions and is not a replacement for the operator checking above when raising the work platform)

Section 2 - Specification

2.1 Technical data

Rated load, manual forces & weight	Metric	Imperial	
Rated load (rated capacity)	250kg	551lbs	
equivalent to	1 person (80kg) & 170kg tools/materials	1 person (176lbs) & 375lbs tools/materials	
Maximum allowable manual force	200N	45lbf	
Maximum allowable chassis inclination	2° Longitudinal/1.3° Lateral		
Maximum allowable wind speed	0m/s	0mph	
Machine weight	375kg	826.73lbs	
Point loading (with safe working load)	0.26kN/cm ²	378.71psi	

Dimensions		
Maximum safe working height	5.4m	17ft 8.6in
Maximum platform height	3.4m	11ft 1.9in
Minimum platform height	0.66m	2ft 2in
Platform length	1.28m	4ft 2in
Platform width	0.63m	2ft 0.8in
Overall width	0.76m	2ft 6in
Stowed length	1.433m	4ft 8.4in
Stowed height	1.76m	5ft 9.3in
Ground clearance	50mm	2in

Electrical	
Voltage	12V DC
Power pack motor	1.2kW DC
Battery	12V/100Ah
Battery charger	Universal 100-240V 50-60Hz AC 15A

Hydraulics		
Maximum hydraulic pressure	135 bar	1958.01psi
Working pressure	80 bar	1160.3psi
Hydraulic fluid reservoir	2.35 litres	0.52 gallons

Performance (with safe working load)	
Ascent time	23 seconds
Descent time (including 3 second stop for armguard)	21 seconds

Section 2 - Specification/continued

2.2 Operating site

When a BoSS PA-lift is delivered to site, ensure that the machine will be able to reach the work area; this is not a rough terrain machine and should not be pushed across unstable or uneven ground as this could cause significant damage to the machine. It is good practice to walk the route from the machine parking place to the workplace before moving the machine.

A visual inspection of the operating area should be made before setting up the machine, paying particular attention to the following issues:

2.2.1 Ground conditions

Ensure that the ground on which the BoSS PA-lift is to operate is capable of supporting the weight of the machine (including the maximum rated load/capacity of 250kg (551lbs)). Be aware of specific floor areas such as manhole covers which may not be designed to withstand the maximum point loading of 0.26kN/cm² (378.71psi) exerted by the castor wheels.

2.2.2 Ground flatness

Ideally, the BoSS PA-lift should be operated on a flat surface, however the machine can be safely operated where the ground is slightly uneven resulting in the following maximum inclinations:

- Lateral 1.3°
- Longitudinal 2°

The BoSS PA-lift is fitted with a tilt sensor (integrated into the control unit of the machine), and the platform will not raise if the angles above are exceeded.

All four castor wheels must be in contact with the ground at all times.

Section 2 - Specification/continued

2.2.3 Overhead obstructions

The BoSS PA-lift is fitted with a proximity sensor which acts as an aid to the identification of overhead obstructions. As the operator gets closer to the obstruction above, the alarm will increase in speed until reaching a constant tone and stopping the ascent when the operator is about to make contact with the obstruction. The operator can then press the green function enable button (STEP 1) followed by the UP or DOWN button (STEP 2) on the platform controller (as shown in the graphic on the right), to fine tune the height of the work platform.



WARNINGS

- Ensure that the top surface of the proximity sensor is clean **BEFORE** operating the BoSS PA-lift.
- The proximity sensor fitted to the BoSS PA-lift is not a replacement for the operator ensuring, by visual inspection, that there is adequate clearance available, both above and around the work platform, before deployment and elevation.
- Pay particular attention to the presence of live electrical cables.



2.2.4 Segregation from other site vehicle movements

Every worksite should be subject to a risk assessment, and where vehicle movements are likely to occur close to the BoSS PA-lift, measures should be taken to segregate the machine from other vehicles. This might include the use of cones, barriers, signage, and rerouting measures.

Section 2 - Specification/continued

2.3 Noise & vibration

The noise level emitted by the BoSS PA-lift at both platform and ground level is less than 70dBA.

The vibration experienced when using the BoSS PA-lift is less than 2.5m/s² (8.2fps²).

2.4 Limitations

Please consult the manufacturer if you are unsure about any application for which the BoSS PA-lift is being considered.

The machine has been tested for Electromagnetic Compatibility (EMC). However, operation near to high powered radio transmission apparatus (e.g. radar) or within strong electrical and/or magnetic fields may affect some of the features of this machine.

WARNINGS

- The BoSS PA-lift has not been designed for operation in a hazardous environment where flammable or explosive gases or particulates are present. Advice should be sought from the person in charge of the site regarding the need to select MEWP's that are designed for use in the hazardous environment and the use of suitable personal protective equipment. Expert advice may need to be sought.
- The BoSS PA-lift is not electrically insulated and must never be used for live line working. Death or serious injury can result from contact with, or inadequate clearance from electrical conductors.
- The risk assessment carried out as part of the planning process, when considering the use of the BoSS PA-lift, should take account of the particular hazards of lone working. Of particular concern, is the rescue of the occupant from the platform in the case of machine malfunction, work platform entanglement, or a medical emergency. Guidance on lone working is given in the HSE leaflet INDG73 (UK only, guidance and/or regulations in other countries may vary).

Section 3 - Safety rules

The operator of the BoSS PA-lift must read, understand, and adhere to the following safety rules in every way.

NEVER manoeuvre the BoSS PA-lift with a person or materials on the platform.

NEVER manoeuvre the BoSS PA-lift on an inclined surface otherwise it may become uncontrollable.

NEVER access the work platform by any other means than through the gate i.e. do not climb over or under the guardrails.

NEVER work from the platform with the gate open.

NEVER attach a harness restraint lanyard to any other point than the approved anchorage located on the floor of the work platform.

NEVER release the brakes or manoeuvre the BoSS PA-lift when the work platform is elevated, as this may cause instability.

NEVER stand on any of the guardrails or the gate to gain extra height or reach. Anti-Climb Guards are available as an accessory - see Section 9 of this Instruction Handbook.

NEVER attempt to increase the reach or working height of the BoSS PA-lift by use of additional equipment e.g. ladders.

NEVER apply external side loads to the platform or scissor structure.

NEVER use the guardrails to carry materials.

NEVER use the BoSS PA-lift as a jack, prop, or tie to support other structures or machines etc.

NEVER use the BoSS PA-lift as a crane.

NEVER use the BoSS PA-lift as an electrical earth when welding structures alongside it.

NEVER attempt to overreach.

NEVER attempt to get on or off the work platform of the BoSS PA-lift when elevated.

NEVER allow works overhead of the BoSS PA-lift to be undertaken which are outside the control of the operator.

NEVER exceed the 250kg(551lbs) rated load/capacity of the work platform.

NEVER interfere with, wedge or attempt to override hydraulic, electrical, or mechanical safety devices.

NEVER allow persons at ground level to operate the controls whilst the platform is occupied UNLESS there is an emergency.

NEVER open the drawer in the chassis as this may cause instability. The drawer must only be opened by an authorised, trained, and competent maintenance engineer.

NEVER stand in front of, or behind the BoSS PA-lift whilst it is being winched.

NEVER use the BoSS PA-lift in temperatures exceeding 45°C(113°F) or below -15°C(5°F).

Section 3 - Safety rules/continued

The operator of the BoSS PA-lift must read, understand and adhere to the following safety rules in every way.

ALWAYS read and understand this Instruction Handbook before using the machine.

ALWAYS Undertake a risk assessment including assessing the route for obstacles and fragile surfaces before moving the machine from one location to another.

ALWAYS lock the swivel castors when the machine is stationary, whether in use or powered off.

ALWAYS check that the LOLER certification of the machine is in date before use (UK only, regulations in other countries may vary).

ALWAYS Undertake all the daily checks recommended in this Instruction Handbook (see operator checklist in Section 6.5), prior to the operation of the machine.

ALWAYS ensure the BoSS PA-lift is positioned on adequate ground to support the weight of the machine and its rated load/capacity.

ALWAYS keep the BoSS PA-lift away from contact with fixed objects (e.g. ceilings etc.) or moving objects (e.g. vehicles, cranes etc.).

ALWAYS ensure the safety of persons that may enter the area around the platform and keep other vehicles clear of the work area i.e. cordon off the area to prevent persons and other vehicles entering the danger area.

ALWAYS ensure that another responsible person on site knows how to use the emergency controls i.e. the chassis mounted emergency stop, the key switch and toggle switch for the powered descent of the work platform, and the non-powered emergency descent handle.

ALWAYS keep both feet firmly on the surface of the work platform when using the machine.

ALWAYS ensure the weight is evenly distributed within the platform.

ALWAYS carry tools and materials within the confines of the guardrails of the work platform.

ALWAYS ensure hands are within the confines of the guardrails when elevating and lowering the work platform by use of the grab handles provided.

ALWAYS ensure that there are no obstructions/persons that may be struck by the platform before and during the raising and lowering of the work platform.

ALWAYS keep the BoSS PA-lift clear of live electric conductors.

ALWAYS ensure the access gate is closed and latched once the operator has entered the work platform.

ALWAYS deploy the maintenance chock, if working under the work platform.

ALWAYS thread the hoisting straps inside the guardrails when hoisting the machine.

Section 4 - Operating instructions

4.1 Daily checks

It is essential to carry out daily checks of the BoSS PA-lift, to ensure its safe condition of use, including the following as a minimum:

- Switch on the power and ensure that the alarm sounds (a single one second tone).
- Check that the battery is fully charged by looking at the level displayed on the dual battery charge level and charging indicator on the front of the drawer in the chassis.
- Structure: guardrails (ensure the guardrail fixings to the retaining tubes on the work platform are fully tightened), platform, scissors and chassis (e.g. cracks, corrosion, abrasions, cracked welds, loose fixings, collision and general damage etc.).
- Visual inspection of castellated nuts and locking pins on the scissor.
- Condition of castors, tyres and brakes by visual inspection.
- With the platform lowered, the swivel castor brakes applied and on a level surface, push the machine from the left and right side of the gate end to ensure the brakes are fully functioning.
- Without the swivel castor brakes applied and on a level surface, raise the
 platform until the automatic fixed castor brakes are engaged. Then push the
 machine from the left and right side of the gate end to ensure the brakes are
 fully functioning.
- Hydraulic oil leaks by visual inspection of the hydraulic cylinder.
- Visible chafed hydraulic hose by visual inspection.
- Visible loose electrical fittings, connections and switches by visual inspection.
- Visible chafed electrical cables by visual inspection.
- That the surface of the overhead proximity sensor, mounted on the outside of the end toe board opposite the gate end of the work platform, is undamaged and clean.
- Obscured, dirty or damaged instruction labelling and manufacturer's plate.
- Emergency stop function activated on the platform controller (with the key switch on the front of the chassis drawer turned to PLATFORM).
- Emergency stop function activated on the chassis (with the key switch on the front of the chassis drawer turned to PLATFORM).
- Raise and lower functions (including the 3 second descent delay) by removing the platform controller from its holster on the work platform and using the controls whilst at ground level (with the key switch on the front of the chassis drawer turned to PLATFORM).
- Emergency lowering of the platform (see page 24).

4.1 Daily checks/continued

If any of the daily pre-use checks reveal malfunctions or damage on the machine, then it must not be used until the problem is rectified by an accredited maintenance engineer. If in doubt, seek further assistance by contacting the manufacturer. If instruction labels or plates are no longer legible or missing, contact the manufacturer for replacements. The Daily Checks page in Section 6.5 of this Instruction Handbook may be photocopied or is available to download from the manufacturer's website at www.bosspoweredaccess.com, to provide an aide memoire for operators when undertaking these essential checks.

WARNINGS

- These Daily Checks must be undertaken before the first use of a new BoSS PA-lift.
- Refer to the BoSS PA-lift Maintenance Manual for the requirements of the 6-monthly (1,000 hours) and 2-yearly (4,000 hours) maintenance and checks.

4.2 Manoeuvring the machine

Manoeuvre the BoSS PA-lift into position by standing at the gate end and using both hands on the work platform guardrail uprights as shown right.

WARNINGS

- Never manoeuvre the BoSS PA-lift with the work platform raised or with a person, tools or materials on the platform.
- Moving the machine up or down a slight gradient:
 - ALWAYS ensure that no person or obstacle is in front of the machine going down a slight gradient or behind the machine going up a slight gradient.
 - DO NOT attempt to move the machine up or down a steep gradient.
 - ALWAYS undertake a risk assessment
- Take care to avoid trapping hands or feet whilst manoeuvring the machine.



4.3 Engaging the brakes

The BoSS PA-lift is fitted with two braking systems:

- On the two fixed castors, brakes are applied automatically as the work platform rises.
- On the two swivel castors, brakes are engaged by pushing down on the lever on each castor by foot, as shown in the image right.
 To release, push your foot under the lever and flick upwards.



WARNING

The swivel castors **MUST** be locked whenever the machine is stationary, whether in use or powered off.

4.4 Battery isolation switch

The BoSS PA-lift is fitted with a 3-position key switch, located on the front of the drawer in the chassis, as shown below.



In order to isolate the battery, and therefore the electrical system, the key should be turned to the **OFF** position, as shown in Figure 1 on the right. The key should be removed to prevent the unauthorised use of the machine.

To enable power to the platform controller, turn the key anticlockwise to **PLATFORM**, as shown in Figure 2 on the right.

In order to enable power to the chassis raise and lower toggle switch, turn the key clockwise to **CHASSIS**, as shown in Figure 3 on the right. The key switch is spring loaded when turned to **CHASSIS**, so hold it with your right hand while operating the toggle switch with your left hand.

WARNING

The raise and lower toggle switch which is mounted on the front of the chassis drawer, is intended for emergency and maintenance use only.



Figure 1



Figure 2



Figure 3

4.5 Entering and leaving the work platform

Always use three points of contact when entering and exiting the work platform (e.g. the use of two hands and one foot as shown in the pictures below). Always use the step up to the platform on the chassis of the machine.





On entering the work platform, ensure that the gate is closed behind you, as shown right.



4.6 Harness restraint lanyard anchorage

The BoSS PA-lift is fitted with a harness restraint lanyard anchorage in the floor of the work platform opposite to the gate end. This anchorage is rated at 6kN(0.67tonf) and can only be used by one person (this is a single person machine).



WARNING

- Ensure the harness and lanyard used are adequately rated.
- Ensure that a harness fixed 1.5m (4ft 11in) lanyard is used.

4.7 Platform controller

The platform controller is used to control the normal operation of the BoSS PA-lift from the work platform.

Raising the platform

- 1. Press the green function enable button.
- 2. Within 10 seconds of pressing the green function enable button, press the **UP** button.

Lowering the platform

- 1. Press the green function enable button.
- 2. Within 10 seconds of pressing the green function enable button, press the **DOWN** button.

Note: Part way through the descent of the work platform, a stop of 3 seconds is triggered to alert the operator to look down and around all 4 sides of the platform to ensure that there are no people or obstacles preventing the continued descent of the work platform, thus averting any risk of crushing or shearing. When the platform descent stops the operator should release the **DOWN** button and when they are sure it is safe to continue, the **DOWN** button can be depressed a second time to continue the lowering of the platform. If the **DOWN** button is not pressed within 7 seconds of the end of the stop on descent then the green function enable button will need to be pressed before the **DOWN** button.



4.7 Platform controller/continued

Emergency stop

To stop the platform ascent or descent, in case of an emergency, depress the red emergency stop button. Only once the emergency situation has been addressed, twist the emergency stop button anticlockwise, as shown in the image on the previous page, to restore power to the platform controller.

USB charging port

The platform controller is fitted with a 5V USB charging port. To charge your device, unscrew the cover and plug the USB charging cable into the USB charging port.

WARNING

Ensure that the device being charged is rated for 5V charging.

The BoSS PA-lift is fitted with both angle and overload sensors. If the machine exceeds the 2° longitudinal or 1.3° lateral angle of inclination allowed, the red LED indicator labelled TILT on the left on top of the platform controller will flash, an alarm will sound, and the platform cannot be raised, but can be lowered, in order that the operator can move the machine to a more level working position.

If the platform is overloaded, the red LED indicator labelled OVERLOAD on the right on top of the platform controller will flash, an alarm will sound, and the platform cannot be raised or lowered until the overload is removed.



4.8 Chassis mounted emergency stop

There is an emergency stop mounted on the front of the chassis drawer. This disables all power to the machine, whether in PLATFORM or CHASSIS mode.

Press the emergency stop to activate, and twist anticlockwise to release, as shown in the image on the right.



4.9 Emergency lowering

In the unlikely event of a power failure, or the illness or injury of the operator on the work platform, the work platform can be lowered manually by pulling the red handle mounted on the chassis towards you until the platform has fully lowered, as shown in the image on the right.

If for any reason, you need to stop the emergency descent at any time, release the handle and the platform will stop descending. To continue the descent, pull the red handle again.



WARNINGS

- Always ensure that someone at ground level i.e. other than the operator, is trained to perform this procedure.
- In the unlikely event that the hydraulic hose is cut or damaged in some other way, the platform will be held in the position it was at the moment the hose was damaged. In order to rescue the operator, pull the emergency descent handle to lower the platform. Note that oil will spray out of the hose at the point of damage. Only if safe to do so, collect the oil in a container to minimise the spillage to be cleared up following the incident. Always undertake a risk assessment.

4.10 Battery charge level & charging

A dual battery charge level and charging indicator is fitted to the front of the drawer in the chassis of the BoSS PA-lift.

Battery charge level

The indicator is made up of 10 segments; reading left to right, 1 red, 2 yellow and 7 green.

When the machine is fully charged all 10 segments will be illuminated, as shown in the graphic in Figure 1 below.

When the red and first yellow segments are illuminated, as shown in the graphic in Figure 2 below, it is time to put the machine on charge.



Figure 1



Figure 2

The BoSS PA-lift has an integrated low battery protection system. If only the red and yellow segments in Figure 2 above are illuminated, the platform will not raise but can still descend, and the machine must be put on charge.

4.10 Battery charge level & charging/continued

Battery charging

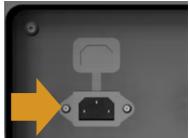
The BoSS PA-lift is fitted with a universal battery charger. To charge the battery, follow the steps below:

1. Select the appropriate charging cable from the toolbox mounted on the guardrail.

2. Plug the charging cable into the socket on the front of the chassis drawer, see graphic on the right.

3. Plug the other end of the charging cable into a 100-240V AC power supply. The lights on the dual battery charge level and charging indicator will begin flashing sequentially up to the level the machine is charged to.

 Once the battery is fully charged all 10 segments on the indicator will be illuminated, as shown in the graphic in Figure 1 on the previous page.



WARNINGS

- The BoSS PA-lift must be charged where the ambient temperature is between 0 and 45°C (32 to 113°F).
- Although it is possible to operate the BoSS PA-lift while it is on charge, as this is not a self-propelled machine, it is not recommended.

Section 5 - Transport, handling and storage

5.1 Storage

The BoSS PA-lift should be stored inside in a secure, clean, and dry environment, with the key in the key switch on the front of the chassis drawer removed.

When the BoSS PA-lift is parked, both swivel castor brakes must be applied, and if the machine has to be parked on a slight gradient all four castors must be chocked.

The BoSS PA-lift must not be stored where the air temperature exceeds 55°C(131°F), or for short periods not exceeding 24 hours 70°C(158°F), or where the temperature falls below -25°C(-13°F).

WARNING

If the machine has been in storage and out of service for any length of time, always undertake the 6-monthly (1,000 hour) checks outlined in the BoSS PA-lift Maintenance Manual.

5.2 Loading & unloading

Using a forklift

The BoSS PA-lift, with both swivel castor brakes applied, may be loaded onto a vehicle by means of an adequately rated forklift, using the forklift pockets provided on the machine, as shown in the image on the right.



WARNINGS

- The forklift used to lift the BoSS PA-lift must be adequately rated.
- The machine may be lifted from either side using the forklift pockets only.
- The machine must not be lifted from either end.
- Ensure the tines (forks) of the forklift are inserted all the way through to the other side of the machine and ensure they are kept horizontal.
- Once located in the correct position on the vehicle, the BoSS PA-lift should be anchored by means of adequately rated and fully tightened straps, passed through each of the forklift pockets on the machine.

Section 5 - Transport, handling and storage/continued

5.2 Loading & unloading/continued

Using a tail lift

The BoSS PA-lift, with platform fully lowered, may also be wheeled onto an adequately rated tail lift. Both swivel castor brakes should then be applied, the tail lift raised, the brakes released and the machine wheeled onto the flatbed of the vehicle. Once located in the correct position, both swivel castor brakes should be applied and the BoSS PA-lift anchored by means of adequately rated and fully tightened straps, passed through each of the forklift pockets on the machine.

WARNING

The tail lift used to lift the BoSS PA-lift must be adequately rated.

Winching

The BoSS PA-lift is fitted with a winching eye to allow the machine to be winched onto an adequately rated trailer or low loader.

Once located in the correct position, both swivel castor brakes should be applied, and the BoSS PA-lift anchored by means of adequately rated and fully tightened straps, passed through each of the forklift pockets on the machine.

WARNING

Never stand in front of, or behind the BoSS PA-lift while it is being winched.



Section 5 - Transport, handling and storage/continued

5.3 Lifting

The BoSS PA-lift may be lifted by a crane or Hiab by threading adequately rated lifting straps through each of the forklift pockets on the machine.

WARNINGS

- A full risk assessment must be carried out.
- The straps must be threaded **INSIDE** the guardrails of the machine.

5.4 Preparation for transport

Prior to transporting the BoSS PA-lift on a vehicle, ensure that the following precautions are taken:

- 1. Ensure the work platform is fully lowered to its stowed position.
- Ensure the platform controller is secured to the platform.
- 3. Ensure the transit gate lock is engaged.
- 4. Ensure both swivel castor brakes are applied.
- 5. Secure the machine to the transport vehicle using adequately rated and fully tightened straps, through each of the forklift pockets as shown below.





Section 6 - Maintenance & repair record

6.1 Machine labelling



6.1 Machine labelling/continued

MANUFACTURER'S PLATE - 21110001



SAFETY DECAL SET - 21110002















HARNESS FIXED

1.5M/4FT 11IN LANYARD

ANCHORAGE

RATING: 6KN (0.67TONF)

(1 PERSON - FALL

RESTRAINT ONLY)

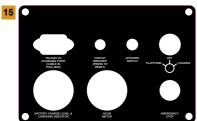


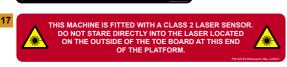














6.1 Machine labelling/continued

BRANDING DECAL SET - 21110003

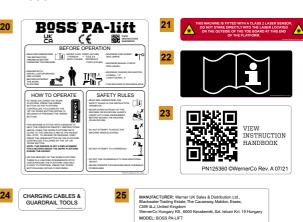




Part no.	Description	Qty.
21110001	BoSS PA-lift manufacturer's plate	1
21110002	BoSS PA-lift safety decal set	1
21110003	BoSS PA-lift branding decal set	1



CONFINED SPACE GUARDRAIL (ACCESSORY) SAFETY DECAL SET -21110004





GUARDRAIL TOOLS

Part no.	Description	Qty.
21110004	BoSS PA-lift Confined Space Guardrail (accessory) safely decal set	1

MODEL DESIGNATION: PUSH AROUND SCISSOR LIFT GUARDRAIL PART NUMBER: 21070001

6.1 Machine labelling/continued



ANTI-CLIMB GUARDS (ACCESSORIES) SAFETY DECAL SETS

ONLY REMOVE THIS GUARD IN CASE OF EMERGENCY!

TO REMOVE, RELEASE BOTH CATCHES ON INSIDE OF GUARDRAIL & LIFT OFF CAREFULLY.

PN122728 @WernerCo Rev. A 07/21

Part no.	Description	Qty.
21110005	BoSS PA-lift Main Guardrail Anti-Climb Guard (accessory) safety decal set	1
21110006	BoSS PA-lift Confined Space Guardrail Anti-Climb Guard (accessory) safety decal set	1

6.2 Maintenance record

Date	Scheduled maintenance undertaken

6.3 Repairs record

Date	Repairs undertaken

6.4 Examinations / tests record

Date	Examinations/tests undertaken

Please photocopy these pages for your own use as required

Location	Ву

Location	Ву

Location	Ву	Safe to use Y/N

Section 6 - Maintenance & repair record/continued

6.5 Daily checks - operator checklist & other maintenance

The following checklist on page 37 has been provided to enable daily checks to be undertaken prior to the use of the BoSS PA-lift. These checks should be carried out each working day, and if operating multiple shifts per day, at the beginning of each shift. The checks should also be undertaken if any situation has occurred which could affect the safe operation of the machine e.g. toppling, significant impact, malfunctions etc. The purpose of the checks is to identify any wear and tear or malfunctions of the machine's components and systems.

WARNINGS

- These Daily Checks must also be undertaken before the first use of a new BoSS PA-lift.
- Failure to undertake these checks may result in defects on, or deterioration
 of, this BoSS PA-lift going undetected, and possibly resulting in an unsafe
 machine.
- Note that the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) (UK only, regulations in other countries may vary) require that persons using lifting equipment have appropriate training and instruction to enable them to identify whether the lifting equipment is safe to use.
- Should any defects be identified in any of the areas outlined in the table on the next page, these must be investigated immediately. It may be necessary to seek further assistance from the supplier of the machine; this may be the rental company, dealer, or the manufacturer.
- You should only rectify any defects, if you are a maintenance engineer and authorized, trained and competent to do so. Please refer to the BoSS PA-lift Maintenance Manual and note that ONLY genuine BoSS PA-lift parts from the manufacturer or the manufacturer's approved spare parts distributor may be used in any repairs required.
- DO NOT USE this machine unless each of the items in the table on the next page has been checked and recorded as OK.

Section 6 - Maintenance & repair record/continued

6.5 Daily checks - operator checklist & other maintenance/continued

Machine serial number

Daily check	OK?
Switch on the power and ensure that the alarm sounds (a single one second tone).	
Check that the battery is fully charged by looking at the level displayed on the dual battery charge level and charging indicator on the front of the drawer in the chassis.	
Structure: guardrails (ensure the guardrail fixings to the retaining tubes on the work platform are fully tightened), platform, scissors and chassis (e.g. cracks, corrosion, abrasions, cracked welds, loose fixings, collision and general damage etc.).	
Visual inspection of castellated nuts and locking pins on the scissor.	
Condition of castors, tyres and brakes by visual inspection.	
With the platform lowered, the swivel castor brakes applied and on a level surface, push the machine from the left and right side of the gate end to ensure the brakes are fully functioning.	
Without the swivel castor brakes applied and on a level surface, raise the platform until the automatic fixed castor brakes are engaged. Then push the machine from the left and right side of the gate end to ensure the brakes are fully functioning.	
Hydraulic oil leaks by visual inspection of the hydraulic cylinder.	
Visible chafed hydraulic hose by visual inspection.	
Visible loose electrical fittings, connections and switches by visual inspection.	
Visible chafed electrical cables by visual inspection.	
That the surface of the overhead proximity sensor, mounted on the outside of the end toe board opposite the gate end of the work platform, is undamaged and clean.	
Obscured, dirty or damaged instruction labelling and manufacturer's plate.	
Emergency stop function activated on the platform controller (with the key switch on the front of the chassis drawer turned to PLATFORM).	
Emergency stop function activated on the chassis (with the key switch on the front of the chassis drawer turned to PLATFORM).	
Raise and lower functions (including the 3 second descent delay) by removing the platform controller from its holster on the work platform and using the controls whilst at ground level (with the key switch on the front of the chassis drawer turned to PLATFORM).	
Emergency lowering of the platform (see page 24).	

Section 6 - Maintenance & repair record/continued

6.5 Daily checks - operator checklist & other maintenance/

Important notes

- Refer to the BoSS PA-lift Maintenance Manual for the requirements of the 6-monthly (1,000 hours) and 2-yearly (4,000 hours) periodical maintenance and checks. A printed version may be requested by contacting the manufacturer or the manual is available to download from www.bosspoweredaccess.com.
- The frequency of periodic thorough examinations and tests will depend on the regulations prevailing in the country in which the BoSS PA-lift is being used.
- The BoSS PA-lift has been designed to operate for 16,800 hours, providing that it is maintained in accordance with the periodical maintenance and checks outlined in the BoSS PA-lift Maintenance Manual.

Section 7 - Troubleshooting

How to view help messages from the control unit of your BoSS PA-lift

If the BoSS PA-lift is not functioning in accordance with this Instruction Handbook, you can view help messages by following the procedure below:

1. Download the EZcal Go App from the App Store (Apple) or Google Play Store (Android) to your smartphone.



- Turn the key switch on the front of the chassis drawer to PLATFORM.
- 3. Open the App on your smartphone and select the EZCAL GO NUMBER for your machine, which is stamped on the manufacturer's plate.
- 4. Press the red ENTER button on the EZcal Go app screen. If there is an issue with the machine, it will be displayed here, or the screen will read EVERYTHING OK if the machine is operating normally.

How to save and send all the data from the control unit of your BoSS PA-lift

If a rental company or dealer requests a save of all the data from your BoSS PA-lift in order to diagnose any issues, please follow the procedure below:

 Download the EZcal Go App from the App Store (Apple) or Google Play Store (Android) to your smartphone.



- Turn the key switch on the front of the chassis drawer to PLATFORM.
- 3. Open the App on your smartphone and select the EZCAL GO NUMBER for your machine, which is stamped on the manufacturer's plate.
- 4. Press the SAVE button on the EZcal Go app screen. The process of saving the data from the control unit may take a few minutes.
- 5. The app will automatically generate a .csv file and open up a method to share the file (email, WhatsApp etc.) with a rental company or dealer.
- 6. Type in the rental company or dealers' details and send.
- 7. Switch OFF the BoSS PA-lift using the key switch on the front of the drawer in the chassis.

Section 8 - BoSS PA-lift Confined Space Guardrail

The full-size guardrail supplied with the BoSS PA-lift may be removed from the work platform and replaced with this Confined Space Guardrail. This smaller guardrail fits easily into the 4 guardrail retainers on the platform, and allows safe access through the grid of a suspended ceiling or into other restricted spaces.

Features include:

- Sliding intermediate guardrail gate
- Holster for platform controller
- Document holder for this Instruction Handbook
- Toolbox with tray
- Safety instruction decal

Part number: 21070001

WARNING

Ensure that the guardrail retainer bolts and then locking nuts are fully tightened when the Confined Space Guardrail is fitted to the platform and when the main guardrail is replaced.



Section 9 - BoSS PA-lift Anti-Climb Guards

These Anti-Climb Guards are available as accessories for the BoSS PA-lift. They are designed to prevent an operator of the machine from gaining additional height by climbing on either of the side guardrails.

They are easy to fit and are available for both the BoSS PA-lift Main Guardrail and for the Confined Space Guardrail.



Anti-Climb Guard Set for Main Guardrail
Part number: 21080001



Anti-Climb Guard Set for Confined Space Guardrail Part number: 21080002

Section 10 - Declarations of Conformity

10.1 EC Declarations of Conformity

EC Declarations of Conformity only apply to machines that are certified for the European market.



EC Declaration of Conformity

We WernerCo Hungary Kft. of 6000 Kecskemét, Szt. Istvan Krt. 19 Hungary and Werner UK Sales & Distribution Limited of Blackwater Trading Estate, The Causeway, Maldon, Essex, CM9 4LJ, United Kingdom do hereby declare under our full responsibility that the mobile elevating work platform (push around scissor lift):

Model: BoSS PA-lift Serial number: SA8 Year of construction: 202 Country of manufacture: PRC

to which this declaration refers conforms to the following directives:

- Machinery Directive 2006/42/EC TÜV SÜD Product Service GmbH certificate number M6A 094925 0015 Rev. 00 - issue date 27 October 2021.
- Electromagnetic Compatibility (EMC) Directive 2014/30/EU TÜV SÜD Product Service GmbH certificate number E8A 094925 0013 Rev. 00 - issue date 4 November 2021.
- The Low Voltage Directive (LVD) 2014/35/EU TÜV SÜD Product Service GmbH certificate number N8MA 094925 0016 Rev. 00 - issue date 27 October 2021.

issued by:

TÜV SÜD Product Service GmbH Ridlerstraße 65 80339 Munich Germany Notified Body Number: NB0123

The following regulations and technical specifications were used:

- BS EN 280:2013+A1:2015 Mobile elevating work platforms. Design calculations. Stability criteria. Construction. Safety. Examinations and tests
- BS EN 61000-6-2:2005 Electromagnetic compatibility (EMC) Generic standards Immunity for industrial environments
- BS EN IEC 61000-6-4:2019 Electromagnetic compatibility (EMC) Generic standards. Emission standard for industrial environments
- BS EN 60204-1:2018 Safety of machinery. Electrical equipment of machines. General requirements

Name and Address of the person authorized to compile the technical files: WernerCo Hungary Kft. of 6000 Kecskemét, Szt. Istvan Krt. 19 Hungary
Signed for and on behalf of WernerCo Hungary Kft:
Print name:
Position: Quality Manager
Date:



Section 10 - Declarations of Conformity/continued

10.2 UKCA Declarations of Conformity

UKCA Declarations of Conformity only apply to machines that are certified for England, Scotland and Wales.



UKCA Declaration of Conformity

We Werner UK Sales & Distribution Limited of Blackwater Trading Estate, The Causeway, Maldon, Essex, CM9 4LJ, United Kingdom do hereby declare under our full responsibility that the mobile elevating work platform (push around scissor lift):

Model: BoSS PA-lift Serial number: SA8 Year of construction: 202 Country of manufacture: PRC

to which this declaration refers conforms to the following regulations:

- Supply of Machinery (Safety) Regulations 2008
- . The Electric Equipment (Safety) Regulations 2016
- Electromagnetic Compatibility Regulations 2016

The machine also fulfills the principles of the following design standards:

- BS EN 280:2013+A1:2015 Mobile elevating work platforms. Design calculations. Stability criteria. Construction. Safety. Examinations and tests
- BS EN 61000-6-2:2005 Electromagnetic compatibility (EMC) Generic standards Immunity for industrial environments
- BS EN IEC 61000-6-4:2019 Electromagnetic compatibility (EMC) Generic standards. Emission standard for industrial environments
- BS EN 60204-1:2018 Safety of machinery. Electrical equipment of machines. General requirements

Name and address of the person authorized to compile the technical files: Werner UK Sales & Distribution Limited, Blackwater Trading Estate, The Causeway, Maldon, Essex, CM9 4LJ, United Kingdom

Signed for and on behalf of Werner UK Sales & Distribution Limited:

Print name:

Position: Quality Manager



Notes

Notes			

B955°



For further information and support for the BoSS PA-lift or any other products and services, please contact:

Werner UK Sales & Distribution Ltd.
Blackwater Trading Estate
The Causeway, Maldon,
Essex, CM9 4LJ
United Kingdom

WernerCo Hungary. Kft. 6000 Kecskemét, Szt. Istvan Krt. 19 Hungary

uk.customercare@wernerco.com

Werner UK Sales & Distribution Ltd. is a manufacturer member of:

