

OPERATING MANUAL (CE)

DC ELECTRIC SCISSORS

MODEL SJIII 4740

198736AHA
April 2019

SKYJACK

This manual is based on Serial Number(s):

SJIII 4740 70 200 001 & Above

Please refer to the website (www.skyjack.com) for older Serial Numbers.

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The Safety Alert Symbol identifies important safety messages on MEWP, safety signs in manuals or elsewhere. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.



This Safety Alert Symbol means attention!

Become alert! Your safety is involved.

DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

IMPORTANT

IMPORTANT indicates a procedure essential for safe operation and which, if not followed, may result in a malfunction or damage to the MEWP.

Original instructions in English.

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SKYJACK is continuously improving and expanding product features on its equipment, therefore, specifications and dimensions are subject to change without notice.

Aerial Platform and Mobile Elevating Work Platform Definition
A mobile device that has a positionable platform supported from ground level by a structure.

Purpose of Equipment
The SKYJACK SJIII 4740 DC Electric series MEWPs are designed to transport and raise personnel, tools and materials to overhead work areas.

Use of Equipment
The MEWP is a highly maneuverable, mobile work station. Work platform elevation and elevated driving must only be done on a firm, level surface.

Manual
The operating manual is considered a fundamental part of the MEWP. It is a very important way to communicate necessary safety information to users and operators. A complete and legible copy of this manual must be kept in the provided weather-resistant storage compartment on the MEWP at all times.

Operator
The operator must read and completely understand both this operating manual and the safety panel label located on the platform and all other warnings in this manual and on the MEWP. Compare the labels on the MEWP with the labels found within this manual. If any labels are damaged or missing, replace them immediately.

Service Policy and Warranty
SKYJACK warrants each new product to be free of defective parts and workmanship for the first 2 years or 3000 hours, whichever occurs first. Any defective part will be replaced or repaired by your local SKYJACK dealer at no charge for parts or labor. In addition, all products have a 5 year structural warranty. Contact the SKYJACK Service Department for warranty statement extensions or exclusions.

Optional Accessories
The SKYJACK MEWP is designed to accept a variety of optional accessories. These are listed under “Standard and Optional Features” in Table 4.1. Operating instructions for these options (if equipped) are located in Section 3 of this manual.

For options not listed under “Standard and Optional Features,” contact the SKYJACK Service Department at

☎ : 44-1691-676-235
: 44-1691-676-238

Include the model and serial number for each applicable mobile elevating work platform.

Scope of this Manual
a. This manual applies to the CE version of the SJIII 4740 Series Mobile Elevating Work Platform models listed on Table 4.1.

Equipment identified with “CE” meets the requirements for the European countries, i.e., Machinery Directive 2006/42/EC and Directive 2014/30/EU and the corresponding EN standards.

b. Operators are required to conform to national, state or territorial/provincial and local health and safety regulations applicable to the operation of this MEWP.

WARNING

Failure to comply with your required responsibilities in the use and operation of the MEWP could result in death or serious injury!

Operator Safety Reminders

A study conducted by St. Paul Travelers showed that most accidents are caused by the failure of the operator to follow simple and fundamental safety rules and precautions.

You, as a careful operator, are the best insurance against an accident. Therefore, proper usage of this MEWP is mandatory. The following pages of this manual should be read and understood completely before operating the MEWP.

Common sense dictates the use of protective clothing when working on or near machinery. Use appropriate safety devices to protect your eyes, ears, hands, feet and body.

Any modifications from the original design are strictly forbidden without written permission from SKYJACK.

Electrocution Hazard

This MEWP is not electrically insulated. Maintain a Minimum Safe Approach Distance (MSAD) from energized power lines and parts as listed below. The operator must allow for the platform to sway, rock or sag. This MEWP does not provide protection from contact with or proximity to an electrically charged conductor.

DO NOT USE THE MEWP AS A GROUND FOR WELDING.
DO NOT OPERATE THE MEWP DURING LIGHTNING OR STORMS.
DO NOT OPERATE THE MEWP NEAR POWER LINES. MAINTAIN A MINIMUM SAFE APPROACH DISTANCE (MSAD) FROM ENERGIZED POWER LINES.



DANGER

Avoid Power Lines

Minimum Safe Approach Distance

CE Guidance Note

"Avoidance of danger from overhead lines"

Adhere strictly to the governmental rulings and regulations applicable in your country.

FAILURE TO AVOID THIS HAZARD WILL RESULT IN DEATH OR SERIOUS INJURY!

60023AE-CE

Safety Precautions

Know and understand the safety precautions before going on to next section.

WARNING

Failure to heed the following safety precautions could result in tip over, falling, crushing, or other hazards leading to death or serious injury.

- **KNOW** all national, state or territorial/provincial and local rules which apply to your MEWP and jobsite.
- **TURN** main power disconnect switch "◯" off when leaving the aerial platform unattended. Remove the key to prevent unauthorized use of the MEWP.
- **WEAR** all the protective clothing and personal safety devices issued to you or called for by job conditions.
- **DO NOT** wear loose clothing, dangling neckties, scarves, rings, wristwatches or other jewelry while operating this lift.



- **AVOID** entanglement with ropes, cords or hoses.



- **AVOID** falling. Stay within the boundaries of the guardrails.



- **DO NOT** raise the MEWP or operate elevated in windy or gusty conditions that exceed the limits specified in Table 4.5.



- **DO NOT** increase the lateral surface area of the platform. Increasing the area exposed to the wind will decrease MEWP stability. Avoid tenting.



- **DO NOT** elevate or drive elevated on a slope. Elevated driving must be done on a firm, level surface.



- **DO NOT** drive elevated on a soft or uneven surface.



- **DO NOT** elevate the MEWP if it is not on a firm, level surface.
- **DO NOT** drive elevated near depressions or holes of any type,loading docks, debris, drop-offs or surfaces that may affect the stability of the MEWP.



- **IF OPERATION IN AREAS WITH HOLES OR DROP-OFFS IS ABSOLUTELY NECESSARY,** elevated driving shall not be allowed. Position the MEWP horizontally only with the platform fully-lowered. After ensuring that all 4 wheels or outriggers (if equipped) have contact with a firm, level surface, the MEWP can be elevated. After elevation, the drive function must not be activated.



- **DO NOT** ascend or descend a grade when elevated. When fully-lowered, ascend or descend grades up to maximum rated inclines listed in Table 4-3.



Safety Precautions (Continued)

Know and understand the safety precautions before going on to next section.

- **DO NOT** operate on surfaces not capable of holding the weight of the MEWP including the rated load, e.g. covers, drains, and trenches.

- **DO NOT** operate an MEWP that has ladders, scaffolding or other devices mounted on it to increase its size or work height. It is prohibited.



- **DO NOT** exert side forces on MEWP while elevated.



- **DO NOT** use the MEWP as a crane. It is prohibited.



- **DO NOT** sit, stand or climb on the guardrails. It is prohibited.



- **DO NOT** climb on scissor arm assembly. It is prohibited.



- **AVOID** overhead obstructions. Be aware of overhead obstructions or other possible hazards around MEWP when lifting or driving.



- **AVOID** crushing hazards. Be aware of crushing hazards when lifting or driving. Keep all body parts inside the MEWP.



- **DO NOT** raise the MEWP while the MEWP is on a truck, fork lift or other device or vehicle.



- **DO NOT** lower the platform unless the area below is clear of personnel and obstructions.



- **ENSURE** that there are no personnel or obstructions in the path of travel, including blind spots.



- **BE AWARE** of blind spots when operating the MEWP.

- **DO NOT** use with improperly inflated/damaged tires or wheels. Refer to Section 2: Wheel/Tire Assembly.



- **ENSURE** ALL tires are in good condition and lug nuts are properly tightened.

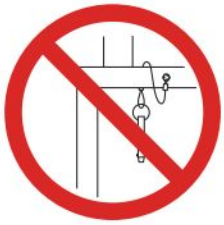
- **DO NOT** alter or disable limit switches or other safety devices.



Safety Precautions (Continued)

Know and understand the safety precautions before going on to next section.

- **DO NOT** use the MEWP without guardrails, locking pins and the entry gate(s) in place.



- **DO NOT** use under influence of alcohol or drugs.



- **STUNT** driving and horseplay are prohibited.
- **DO NOT** exceed the rated capacity of the MEWP.



- **DO NOT** distribute load unevenly.



- **DO NOT** operate if MEWP is not working properly or if any parts are damaged or worn.



- **DO NOT** leave MEWP unattended with key in key switch.



- **DO NOT** position the MEWP against another object to steady the platform.
- **DO NOT** place materials on the guardrails or materials that exceed the confines of the guardrails unless approved by Skyjack.

Safety Precautions (Continued)

Know and understand the safety precautions before going on to next section.

Fall Protection

The guardrail system provides fall protection for the occupants. If additional fall protection is required, by an employer or the authority having jurisdiction, Skyjack recommends the use of a fall restraint system to keep an occupant within the confines of the platform, and thus not expose the occupant to any fall hazard requiring a fall arrest. When used, lanyards should only be attached to dedicated attachment points on the platform.

All personal fall protection equipment must comply with applicable governmental regulations and must be inspected and used in accordance with the manufacturer's recommendations.

All personal fall protection equipment must be attached only to approved anchorage points within the platform.

WARNING

Entering and exiting the MEWP should only be done using the three points of contact.

- **Use only equipped access openings.**
- **Enter and exit only when the MEWP is in the fully retracted position.**

- Do use three points of contact to enter and exit the platform. Enter and exit the platform from the ground only. Face the MEWP when entering or exiting the platform.

- Three points of contact means that two hands and one foot or one hand and two feet are in contact with the MEWP or the ground at all times during entering and exiting.

WARNING

An operator should not use any MEWP that:

- **does not appear to be working properly.**
- **has been damaged or appears to have worn or missing parts.**
- **has alterations or modifications not approved by the manufacturer.**
- **has safety devices which have been altered or disabled.**
- **has been tagged or locked out for non-use or repair.**

Failure to avoid these hazards could result in death or serious injury.

Jobsite Inspection

- Do not use in hazardous locations.
- Perform a thorough jobsite inspection prior to operating the MEWP, to identify potential hazards in your work area.
- Be aware of moving equipment in the area. Take appropriate actions to avoid collision.

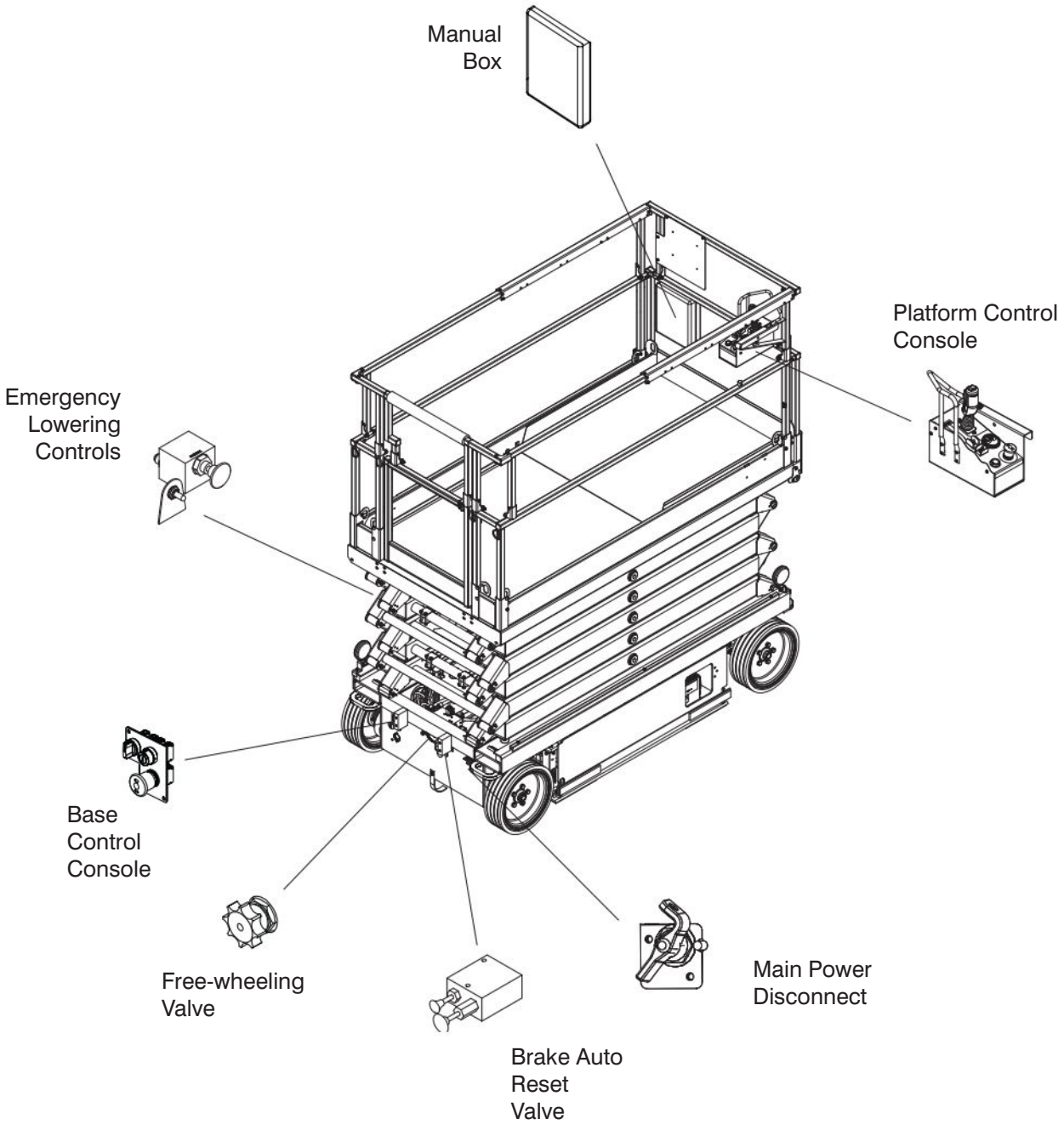
2.1 Familiarization of Model SJIII 4740

WARNING

MEWP Familiarization should be given only to individuals who are QUALIFIED And TRAINED to operate an MEWP.

Do not operate this MEWP without proper authorization and training. Failure to avoid this hazard could result in death or serious injury.

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the MEWP.



2.2 Component Identification

The following descriptions are for identification, explanation and locating purposes only.

2.2-1 Main Power Disconnect Switch

This switch is located at the rear of the base.

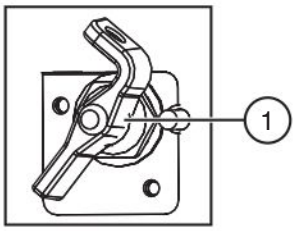


Figure 2-1. Main Power Disconnect Switch

1. **Main Power Disconnect Switch** - This switch, when in "◯" off position, disconnects power to all circuits. Switch must be in "|" on position to operate any circuit. Turn switch to "◯" off when transporting MEWP.

2.2-2 Tilt Alarm

The MEWP is equipped with a device which senses when the MEWP is out of level in any direction. When activated, it disables drive and lift functions of the MEWP and an alarm produces an audible sound accompanied by the amber light (if equipped).

WARNING

If the tilt alarm sounds and the platform does not, or only partially raises, immediately lower the platform completely and ensure that the MEWP is on a firm level surface.

2.2-3 Load Sensing System

This system is a safety device that will prevent any normal movement of the MEWP from a stationary working position after the rated load is reached and exceeded. Refer to Table 4.5 for maximum platform capacities.

- **When 90% of the rated load is reached:**
  The red power indicator light on Emergency Stop Button located at the platform control console flashes.

- **When the rated load is reached:**
  An audible alarm sounds for approximately 2 seconds, 5 times per minute.

- **When the rated load is exceeded:**
  The flashing light and audible alarm continue and all electrically controlled MEWP movement functions stop. To resume normal operation, remove the overload from the platform.

- **If the MEWP comes in contact with an overhead obstruction:**
  The platform could become overloaded and all functions would stop. Release of the platform from this situation can only be effected by use of the emergency lowering system. Refer to Section 2.6.

NOTE

After reaching full extension and upon lowering, the MEWP could stop and take an overload reading. Return the controller to the neutral center position, and release the enable trigger switch. If the MEWP is overloaded, the flashing light and audible alarm continue and all electrically controlled MEWP movement functions stop. To resume normal operation, remove the overload from the platform.

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.

2.2-4 Base Control Console

This control console is located at the rear of the base. It contains the following controls:

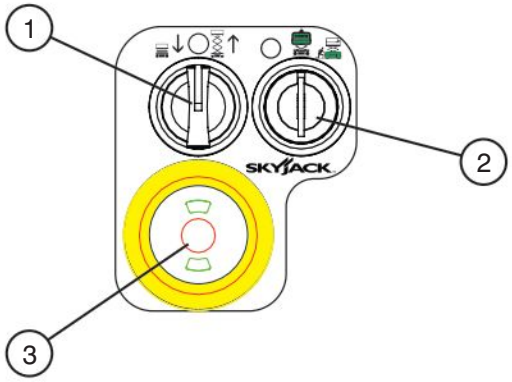


Figure 2-2. Base Control Console

1. **Lower/Neutral/Raise Switch** - This switch controls "↑" raising or "↓" lowering of platform.

2. **Off/Platform/Base Key Switch** - This three-way switch allows the operator to turn "◯" off power to MEWP or to activate either "platform" platform or "base" base controls.

3. **Emergency Stop Button** - This button "", when depressed, disconnects power to the control circuit.

2.2-5 Brake System

The brake system is located at the rear of the base. The brakes must be manually disengaged before pushing, winching or towing. Refer to Section 2.5-2 for procedure on how to release brakes manually. The system contains the following controls:

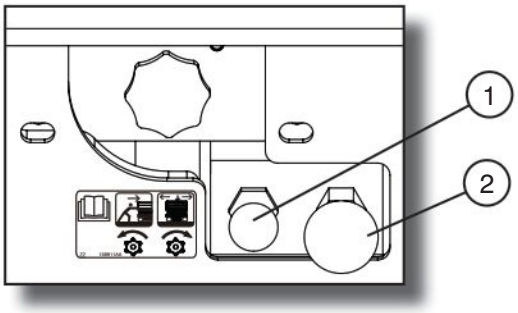


Figure 2-3. Disc Brake System

1. Brake auto reset valve plunger
2. Brake hand pump

2.2-6 Free-wheeling Valve

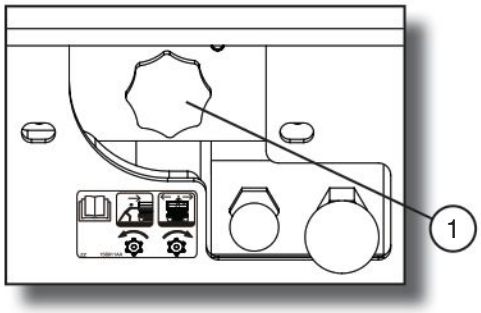


Figure 2-4. Free-wheeling Valve

1. **Free-wheeling Valve** - The free-wheeling valve is located at the rear of the MEWP. Refer to Section 2.5-1 for procedure on how to release the free-wheeling valve.

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.

2.2-7 Emergency Lowering System

The emergency lowering system is located on the hydraulic/electrical compartment. This system allows platform lowering in the event of an emergency or an electrical system failure. Refer to Section 2.6 for the emergency lowering procedure. The system contains the following controls:

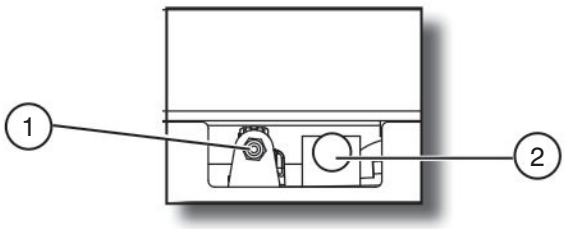


Figure 2-5. Emergency Lowering System

1. Emergency Lowering Switch
2. Emergency Lowering Valve

2.2-8 Lowering Warning System

A lowering warning system automatically stops the lowering function before reaching the fully retracted position and sounds an alarm.

2.2-9 Platform Control Console

This removable control console is mounted at the right front of the platform. It contains the following controls:

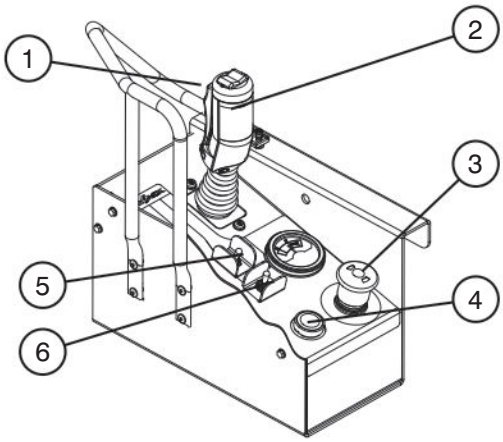


Figure 2-6. Platform Control Console

1. **Lift/Drive/Steer Enable Trigger Switch** - This momentary "" switch energizes the controller. It must be held depressed continuously while engaging either the lift/drive or steer functions.

2. **Lift/Drive/Steer Controller** - This one-hand lever controls lift/drive and steer motions. Internal springs return it to neutral when controller is released.

3. **Emergency Stop Button/Operation Light -** This button "", when depressed, disconnects power to the control circuit. The operation light indicates upper control availability and overload status. When the light is continuously illuminated, upper controls are available. When the light is flashing, it signals an overload function. Refer to Section 2.2-3.

4. **Horn Push Button** - This "" push button sounds an automotive-type horn.

5. **Inclined Drive/Level Drive Switch** - This switch selects "" inclined drive (low speed/high torque) or "" level drive (high speed/low torque).

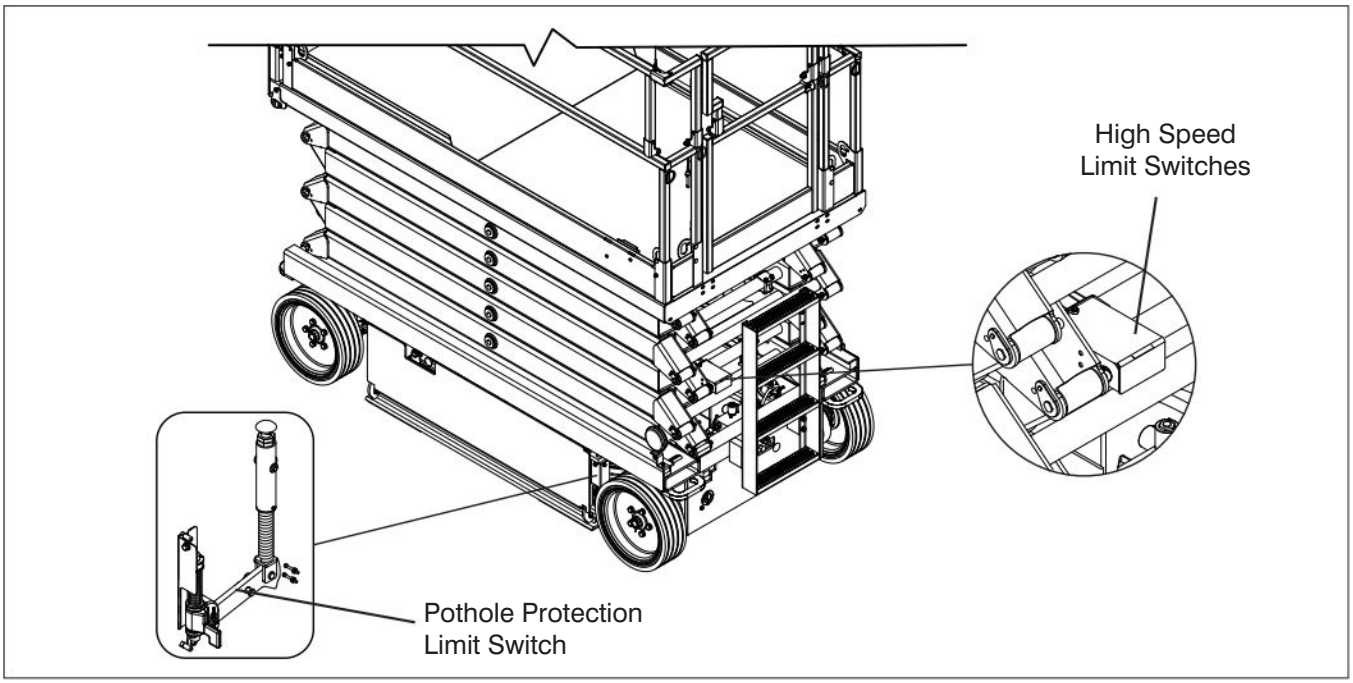
6. **Lift/Off/Drive Switch** - Selecting "" off position disconnects power from both lift and drive circuits. Selecting "" lift position energizes the lift circuit. Selecting "" drive position energizes the drive circuit.

WARNING

Skyjack scissor lifts are to be operated from the operator's position on the platform with the control box secured on the mounting bracket at the front right portion of the platform. Operation of the unit from the ground is permissible only when maintaining the lift or, in limited circumstances, when an obstruction precludes the safe operation of the lift from the operator's position on the platform. Operation from the ground is to be performed as set forth in Section 3.0 of the Operating Manual.

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.

Notes



2.3 Visual & Daily Maintenance Inspections

Begin the visual and daily maintenance inspections by checking each item in sequence for the conditions listed in this section.

WARNING

To avoid injury, do not operate an MEWP until all malfunctions have been corrected.

WARNING

To avoid possible injury, ensure MEWP power is off during your visual and daily maintenance inspections.

CAUTION

Ensure MEWP is on a firm, level surface.

NOTE

While performing visual and daily inspections in different areas, be aware to also inspect limit switches, electrical and hydraulic components.

2.3-1 Labels

Refer to Section 5 - Labels in this manual and determine that all labels are in place and are legible.

2.3-2 Electrical

Maintaining the electrical components is essential to good performance and service life of the MEWP.

Inspect the following areas for chafed, corroded and loose wires:

- base to platform cables and wiring harness
- battery tray wiring harnesses
- hydraulic/electrical wiring harnesses

2.3-3 Limit Switches

Ensure limit switches are properly secured with no signs of visible damage and movement is not obstructed.

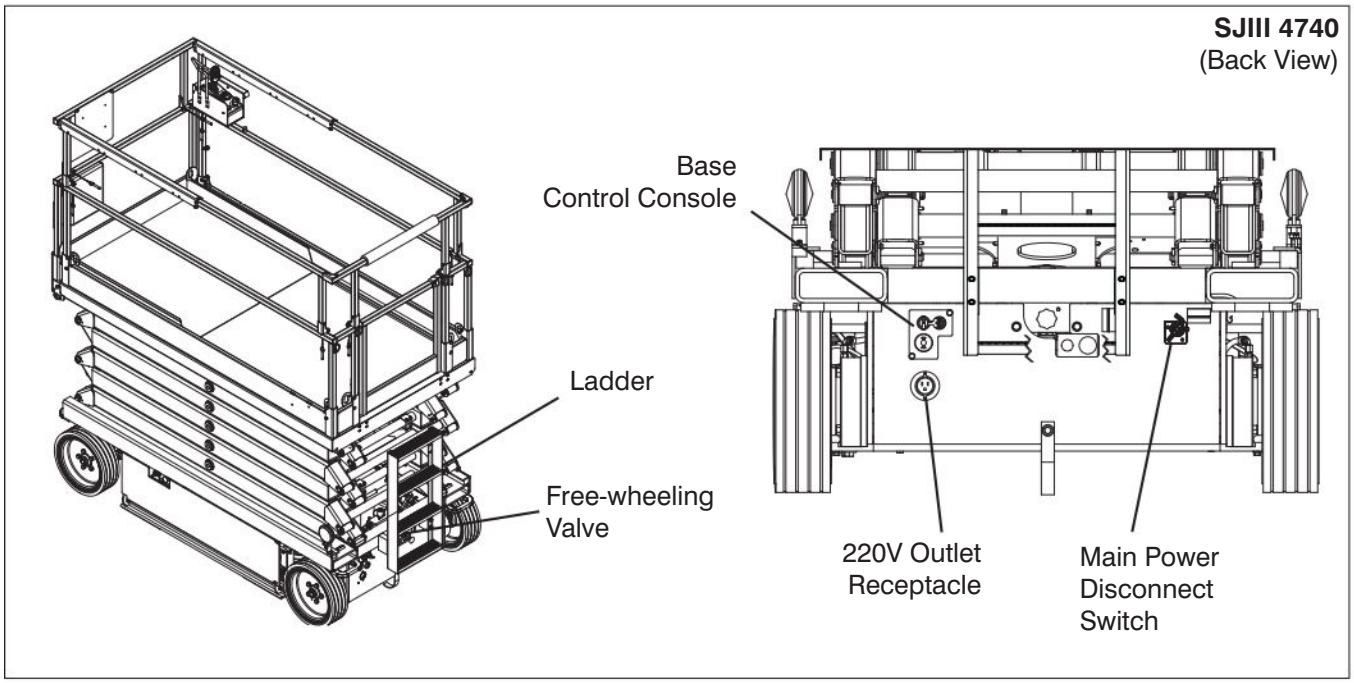
2.3-4 Hydraulic

Maintaining the hydraulic components is essential to good performance and service life of the MEWP.

Perform a visual inspection around the following areas:

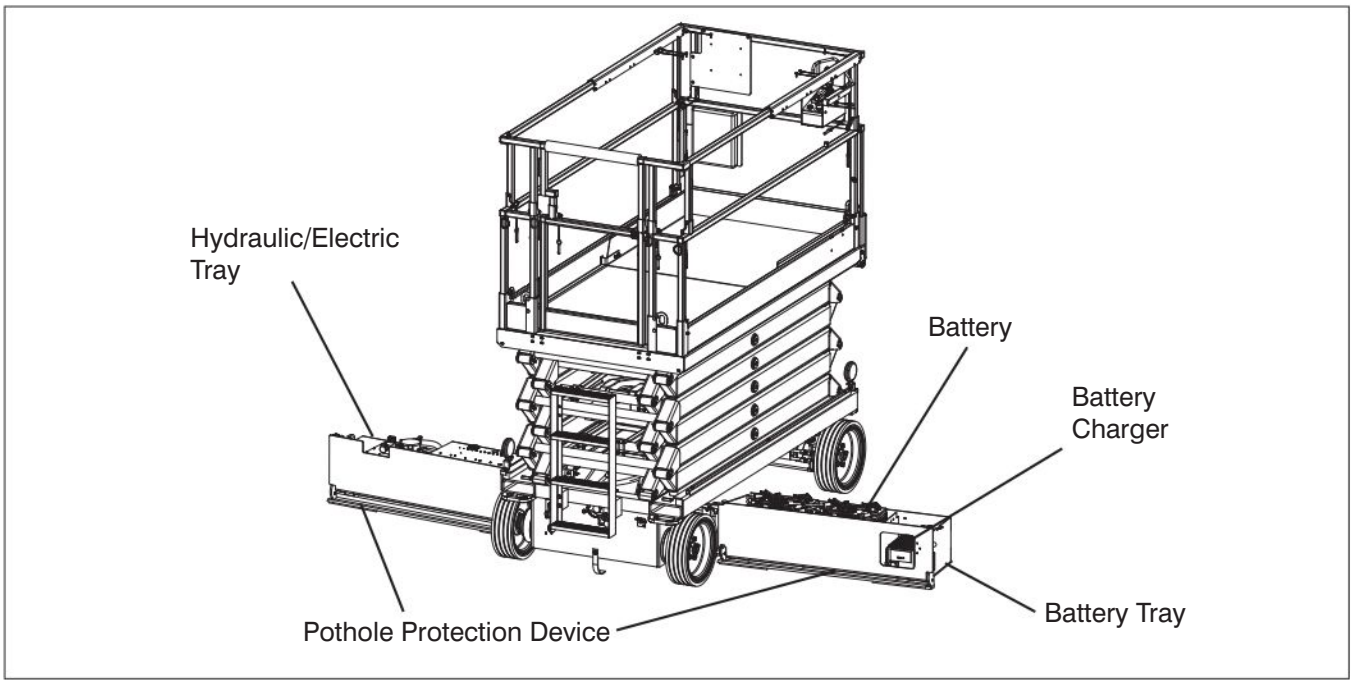
- hoses and fittings
- all hydraulic cylinders
- all hydraulic manifolds
- the underside of the base
- ground area under the MEWP

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.



2.3-5 Entrance Side

- **Main Power Disconnect Switch**
  - Turn main power disconnect switch to "◯" off position.
  - Ensure all cables are secure and switch is in proper working condition.
- **Base Control Switches**
  - Ensure there are no signs of visible damage and all switches are in their neutral positions.
- **Free-wheeling Valve Knob**
  - Ensure there are no loose or missing parts and there is no visible damage.
- **Brakes**
  - Ensure there are no loose or missing parts and there is no visible damage.
  - Ensure tabs are not locked.
- **220V Outlet Receptacle**
  - Ensure receptacle is free from dirt and obstructions.
- **Ladder**
  - Ensure there are no loose or missing parts and there is no visible damage.



2.3-6 Battery Tray Side

- **Pothole Protection Device**
  - Ensure mechanisms have no sign of visible damage and are free from dirt and obstructions.
- **Battery Tray**
  - Ensure tray latch is secure and in proper working order.
- **Battery Charger**
  - Ensure charger is secure and shows no visible damage.
- **Battery**
  Proper battery condition is essential to good performance and operational safety. Improper fluid levels or damaged cables and connections can result in component damage and hazardous conditions.

WARNING

Explosion hazard. Keep flames and sparks away. Do not smoke near batteries.



WARNING

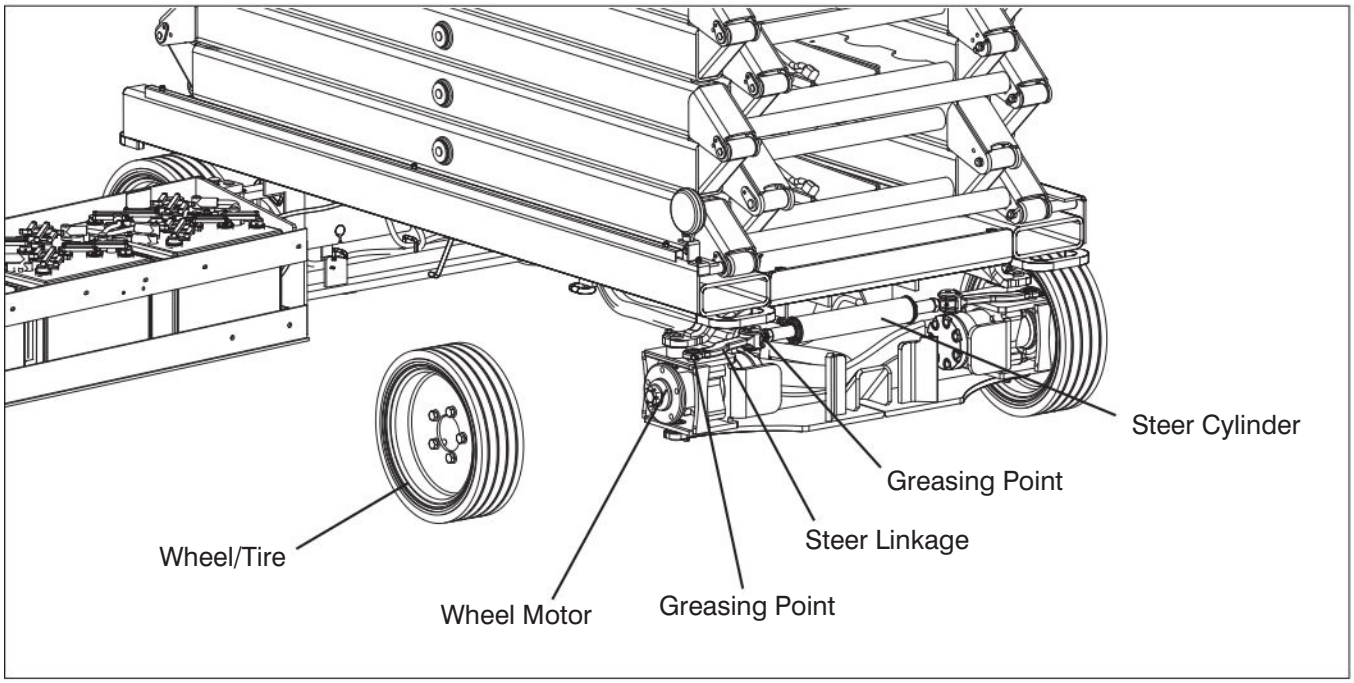
Battery acid is extremely corrosive - Wear proper eye and facial protection as well as appropriate protective clothing. If contact occurs, immediately flush with cold water and seek medical attention.

1. Check battery case for damage.
2. Clean battery terminals and cable ends thoroughly with a terminal cleaning tool or wire brush.
3. Ensure all battery connections are tight.
4. If applicable, check battery fluid level. If plates are not covered by at least 1/2” (13 mm) of solution, add distilled or demineralized water.
5. Replace battery if damaged or incapable of holding a lasting charge.

WARNING

Use original or manufacturer-approved parts and components for the MEWP.

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.



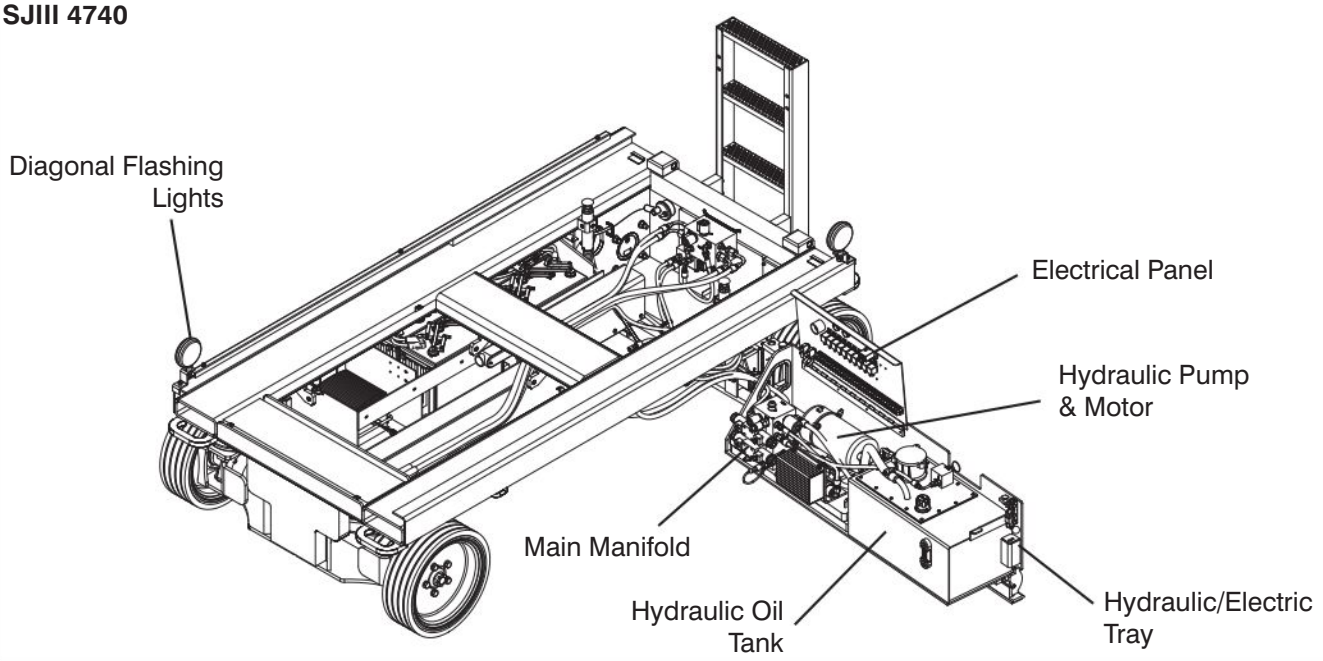
- **Steer Cylinder Assembly**
  - Ensure steer cylinder assembly is properly secured and there are no loose or missing parts.
- **Wheel/Tire Assembly**
  The MEWP is equipped with solid rubber tires. Tire and/or wheel failure could result in an MEWP tip-over. Component damage may also result if problems are not discovered and repaired in a timely fashion.
  - Check all tire treads and sidewalls for cuts, cracks, punctures and unusual wear.
  - Check each wheel for damage and cracked welds.
  - Check each bolt for proper torque to ensure none are loose.
  - Check wheel motor assembly for loose or missing parts and signs of visible damage.
  - Ensure wheels are aligned and true vertically and horizontally.

WARNING

Intermixing tires of different types or using tires of types other than those originally supplied with this equipment can adversely affect stability. Therefore, replace tires only with the exact Skyjack-approved type. Failure to operate with matched approved tires in good condition may result in death or serious injury.

- **Steer Linkages**
  - Ensure there are no loose or missing parts, steer linkages and bushings are secured and there is no visible damage.
- **Greasing Points**
  - Ensure greasing points have no sign of visible damage and are free from dirt and obstructions.

SJIII 4740

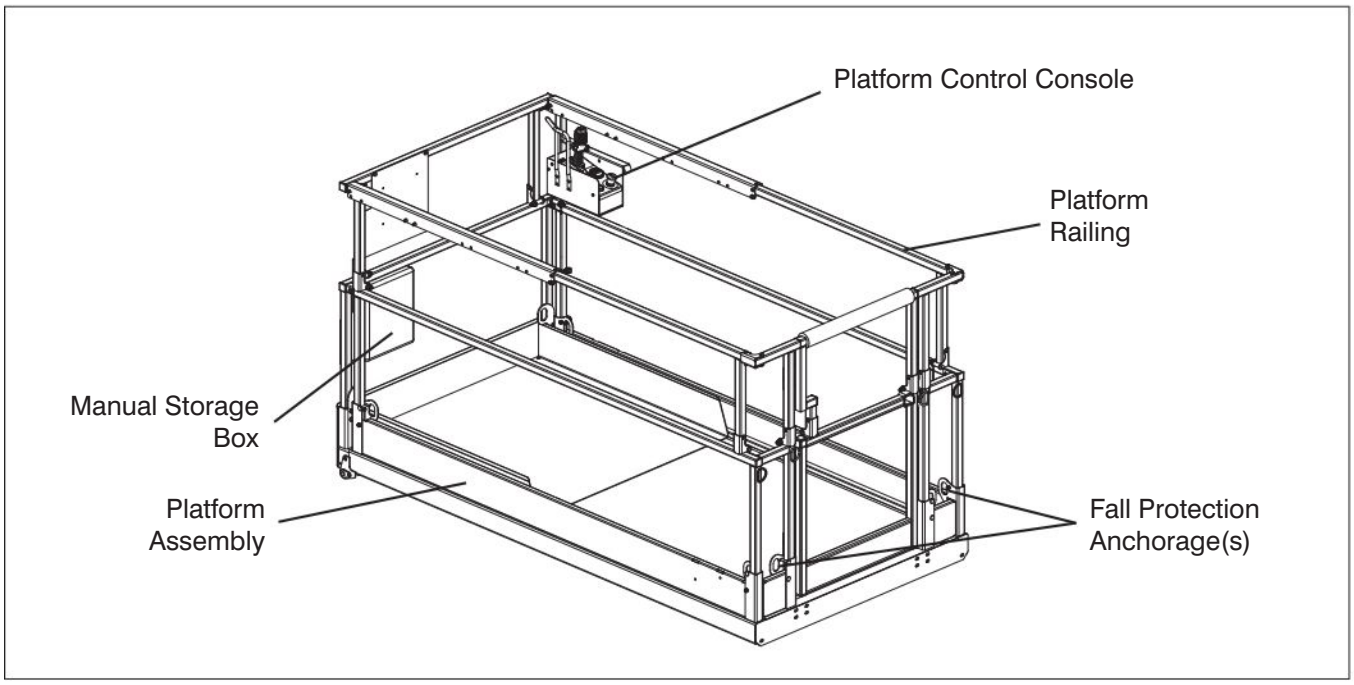


2.3-7 Hydraulic/Electric Tray Side

- Ensure tray latch is secure and in proper working order.

- **Pothole Protection Device**
  - Ensure mechanisms have no sign of visible damage and are free from dirt and obstructions.
- **Hydraulic Tank**
  - Ensure hydraulic filler cap is secure.
  - Ensure tank shows no visible damage and no evidence of hydraulic leakage.
- **Hydraulic Oil**
  - Ensure platform is fully lowered, and then visually inspect the sight gauge located on the side of the hydraulic oil tank.
  - The hydraulic oil level should be at or slightly above the top mark of the sight glass.
- **Hydraulic Pump and Motor**
  - Ensure there are no loose or missing parts and there is no visible damage.
- **Electrical Panel**
  - Ensure panel is properly secured and there is no visible damage.
  - Ensure there are no loose wires or missing fasteners.
- **Main Manifold**
  - Ensure all fittings and hoses are properly tightened and there is no evidence of hydraulic leakage.
  - Ensure there are no loose wires or missing fasteners.

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.



2.3-8 Platform Assembly

WARNING

Ensure that you maintain three points of contact to mount/dismount platform.

1. Use the ladder of MEWP to access platform.
2. Close the gate.
   - Ensure there are no loose or missing parts and there is no visible damage.
   - Ensure all fasteners are securely in place.
   - Ensure all railings are properly positioned and secured.
   - Ensure gate is in good working order.

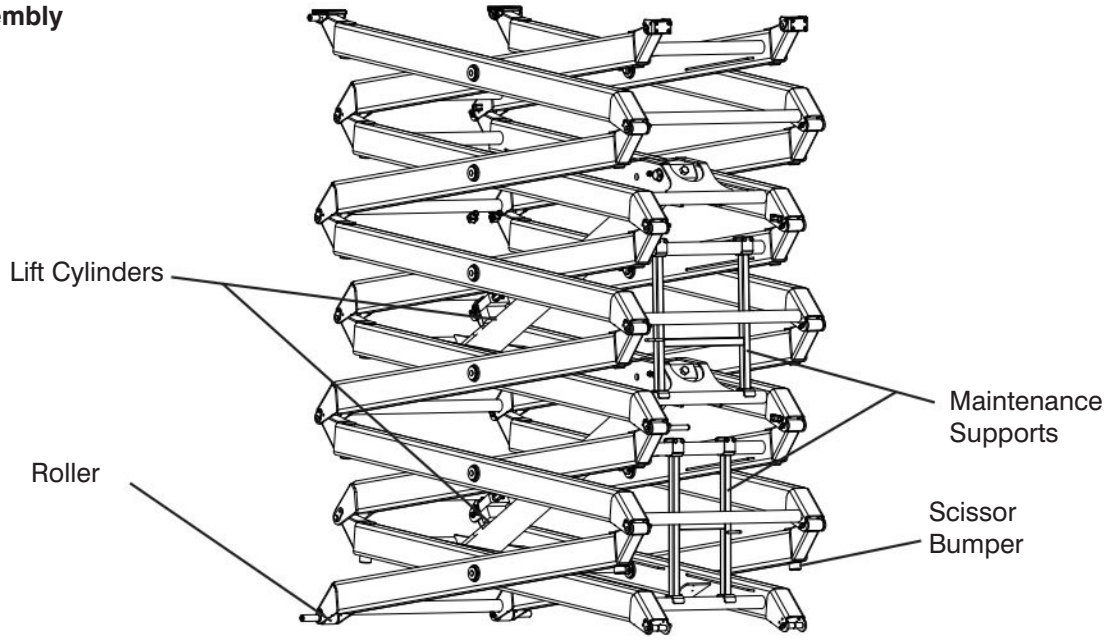
- **Fall Protection Anchorage(s)**
  - Ensure anchorage(s) are secure and there is no visible damage.
- **AC Outlet on Platform**
  - Ensure outlet has no visible damage and free from dirt or obstructions.
- **Platform Control Console**
  - Ensure all switches and controller are returned to neutral and are properly secured.
  - Ensure there are no loose or missing parts and there is no visible damage.
- **Manuals**
  Ensure a copy of operating manual and is enclosed in manual storage box.
  - Check to be sure manual storage box is present and in good condition.
  - Ensure manuals are legible and in good condition.
  - Always return manuals to the manual storage box after use.

WARNING

Ensure that you maintain three points of contact to mount/dismount platform.

3. Use the ladder to dismount from platform.

Scissor Assembly



2.3-9 Lifting Mechanism

1. Raise the platform (refer to Section 3.8-2) until there is adequate clearance to swing down the maintenance support (refer to Section 3.12).

- **Maintenance Supports**
  - Ensure maintenance supports are properly secured and show no visible damage.
- **Scissor Assembly**
  - Ensure scissor assembly shows no visible damage and no signs of deformation in weldments.
  - Ensure all pins are properly secured.
  - Ensure cables and wires are properly routed and shows no signs of wear and/or physical damage.
- **Scissor Bumpers**
  - Ensure bumpers are secure and shows no sign of visible damage.
- **Rollers**
  - Ensure rollers are secure and there is no visible damage.
  - Ensure rollers' path of travel are free from dirt and obstructions.
- **Lift Cylinders**
  - Ensure each lift cylinder is properly secured, there are no loose or missing parts and there is no evidence of damage.
  - Ensure all fittings and hoses are properly tightened and there is no evidence of hydraulic leakage.

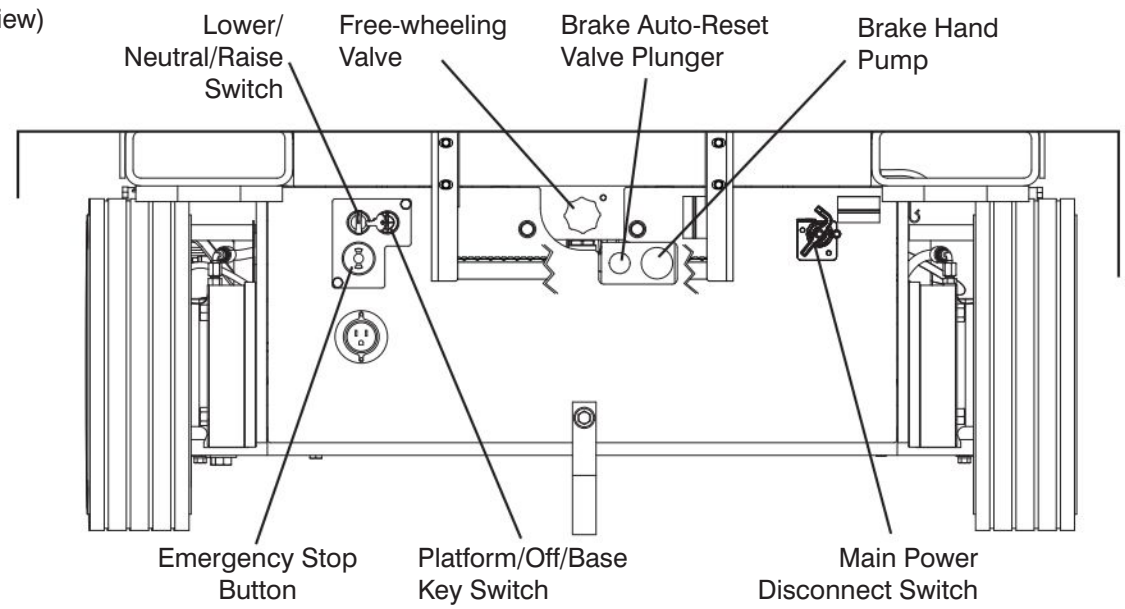
2. Raise the platform until there is adequate clearance to swing up the maintenance support.

3. Swing up maintenance support into storage bracket.

4. Fully lower the platform.

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.

SJIII 4740
(Back View)



2.4 Function Tests

Function tests are designed to discover any malfunctions before MEWP is put into service. The operator must understand and follow step-by-step instructions to test all MEWP functions.

WARNING

Never use a malfunctioning MEWP. If malfunctions are discovered, MEWP must be tagged and placed out of service. Repairs to MEWP may only be made by a qualified/competent service technician.

After repairs are completed, operator must perform a pre-operation inspection and a series of function tests again before putting MEWP into service.

Prior to performing function tests, be sure to read and understand Section 3.8 - Start Operation.

2.4-1 Test Main Power Disconnect Switch

1. At rear of the base, turn main power disconnect switch to "◯" off position.
   Result: MEWP functions should not operate.

2. Turn main power disconnect switch to "|" on position.
   Result: Light should flash once and beeper should sound for approximately 1 second.

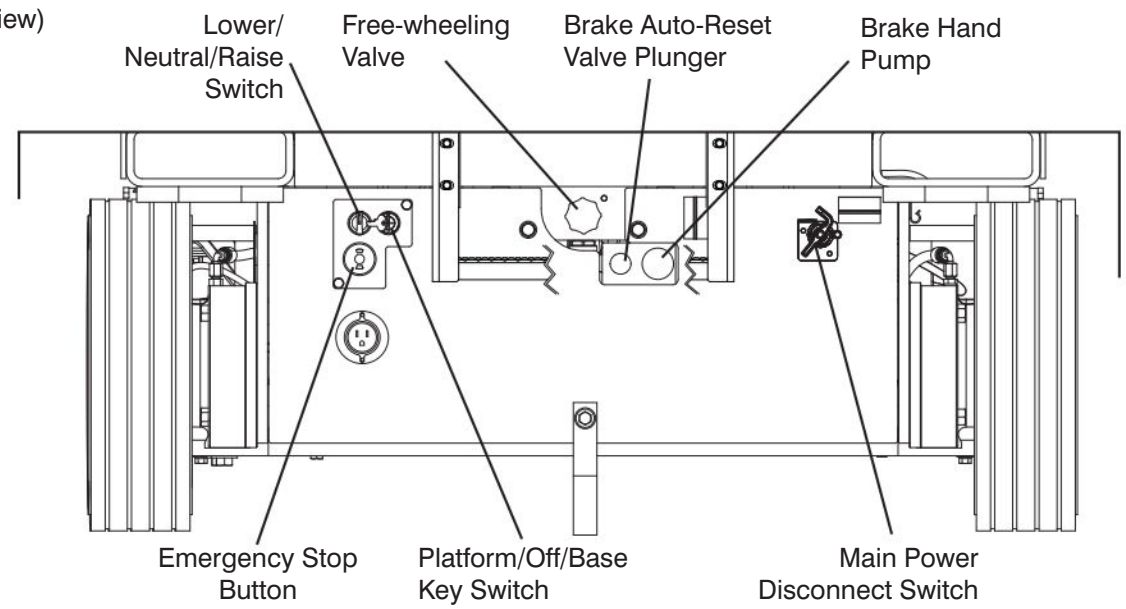
2.4-2 Base Control Console

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

1. Use the ladder of MEWP to access platform.
2. Close the gate.
3. On platform control console, pull out "●" emergency stop button.
4. Use the ladder to dismount from platform.
5. Turn main power disconnect switch to "|" on position.

SJIII 4740
(Back View)



- **Test Base Emergency Stop**

1. Push in "🔴" emergency stop button and attempt to raise or lower the platform.
   Result: Platform raising and lowering functions should not operate.

2. Pull out base "🔴" emergency stop button.

- **Test Off/Platform/Base Switch**

⚠ WARNING

Be aware of overhead obstructions or other possible hazards around the MEWP when lifting.

1. Select off/platform/base key switch "◯" off position. Attempt to raise or lower the platform.
   Result: Platform raising and lowering functions should not operate.

2. Select off/platform/base key switch to "🧍" platform position. Attempt to raise or lower the platform.
   Result: Platform raising and lowering functions should not operate.

3. Turn main power disconnect switch to "|" on position.
   Result: Light should flash once and beeper should sound for approximately 1 second.

4. Select and hold off/platform/base key switch to "🪑" base position. Attempt to raise or lower the platform.
   Result: Platform raising and lowering functions should operate.

- **Test Lower/Neutral/Raise Switch**

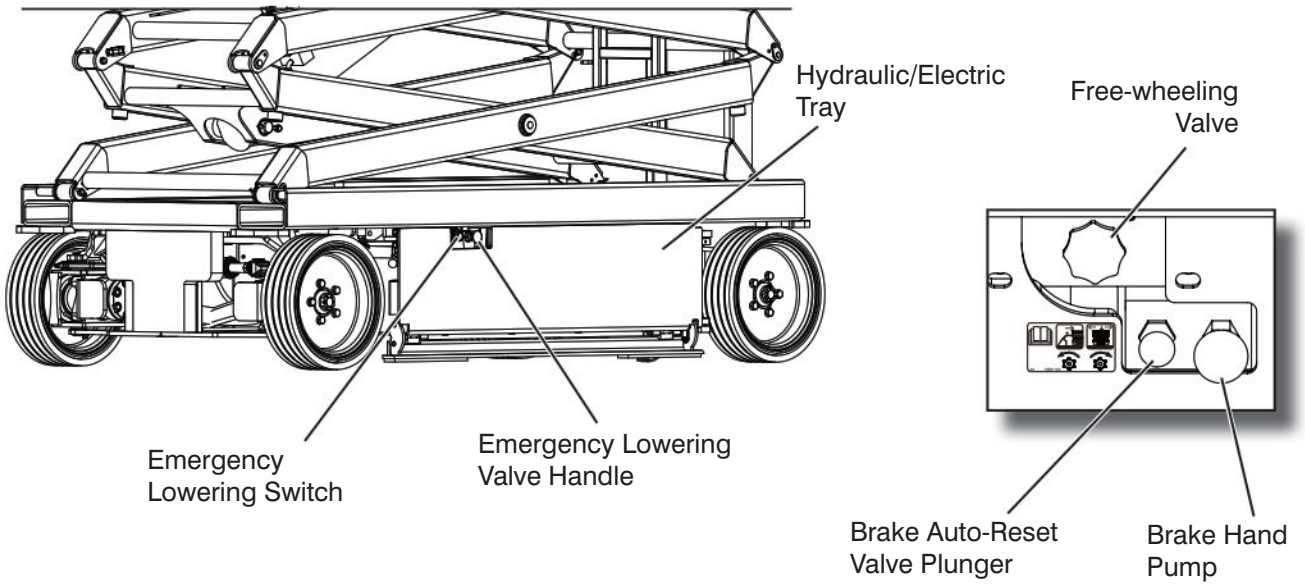
1. Select and hold off/platform/base key switch to "🪑" base position and "↑" raise the platform with lower/neutral/raise switch.
   Result: Platform should rise.

2. Select and hold off/platform/base key switch to "🪑" base position and "↓" lower the platform with lower/neutral/raise switch.
   Result: Platform should lower.

FAMILIARIZATION

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.

SJIII 4740



- **Test Emergency Lowering**

WARNING

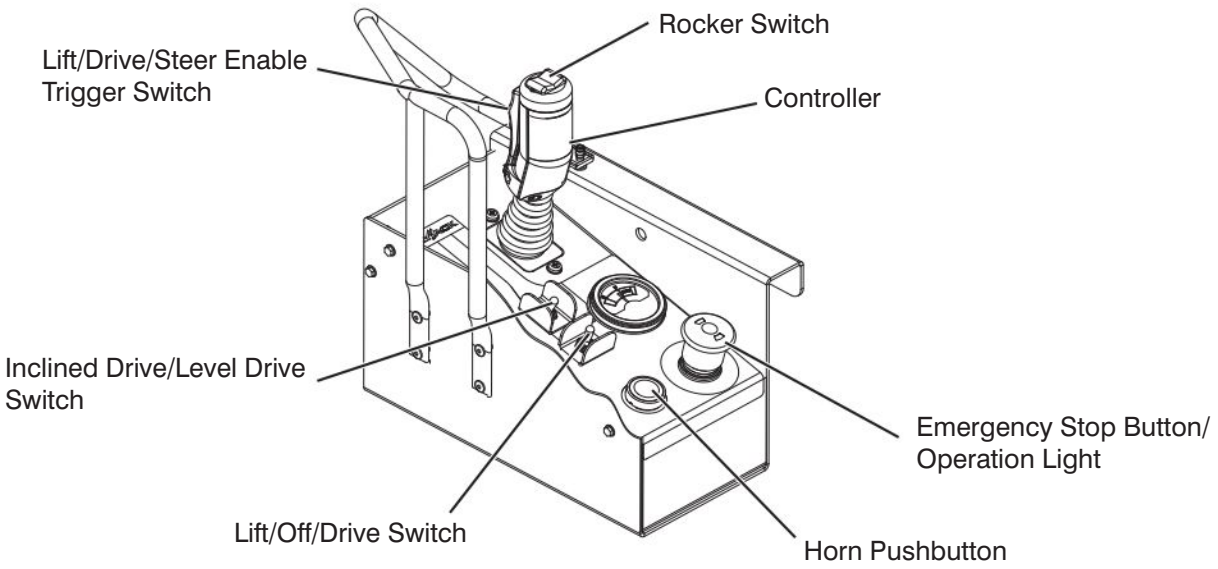
Be aware of overhead obstructions or other possible hazards around the MEWP when lifting.

1. Raise the platform.
2. Push in "" emergency stop button.
3. On hydraulic/electric tray, depress emergency lowering switch to activate the auxiliary lowering valves. Pull out and hold the emergency lowering valve handle to lower platform.
   Result: The platform should lower.

- **Test Free-wheeling**

1. Ensure path of intended motion is clear.
2. Release the brake manually (refer to Section 2.5-2).
3. Turn free-wheeling valve knob counterclockwise to a fully opened position and attempt to push/pull the MEWP.
   Result: Platform should move.
4. Turn free-wheeling valve knob clockwise to a fully closed position for normal operation.
5. Reengage the brake (refer to Section 2.5-2).

Platform Control Console



2.4-3 Platform Control Console

1. Ensure base "" emergency stop button is pulled out.
2. Select off/platform/base key switch to "" platform position.
3. Ensure main power disconnect switch is in "|" on position.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

4. Use the ladder of MEWP to access platform.
5. Close the gate.
6. On platform control console, pull out "" emergency stop button.

- **Test Platform Emergency Stop**

1. Push in "" emergency stop button and attempt to activate any platform function. **Result:** All selected platform functions should not operate.

- **Test Enable Trigger Switch**

1. Pull out "" emergency stop button.
2. Without activating "" enable trigger switch, attempt to activate any platform function. **Result:** All platform functions should not operate.

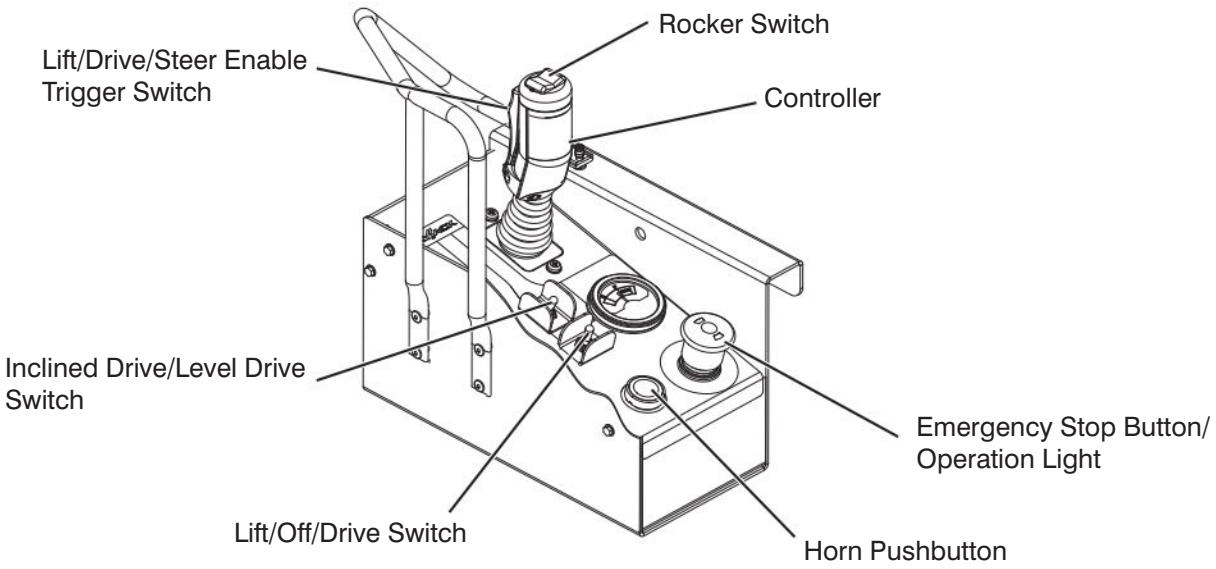
- **Test Steering**

1. Select lift/off/drive switch to "" drive position.
2. Activate and hold "" enable trigger switch.
3. Press rocker switch on top of controller handle to "" left and "" right. **Result:** Steer wheels should turn left and right.

FAMILIARIZATION

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.

Platform Control Console



- **Test Driving**

1. Ensure path of intended motion is clear.
2. Activate and hold "" enable trigger switch.
3. Slowly move controller handle in "" forward direction until MEWP begins to move, and then return handle to center position.
   Result: MEWP should move in forward direction, and then come to a stop.
4. Slowly move controller handle in "" reverse direction until MEWP begins to move, and then return handle to center position.
   Result: MEWP should move in reverse direction, and then come to a stop.

- **Test Brakes**

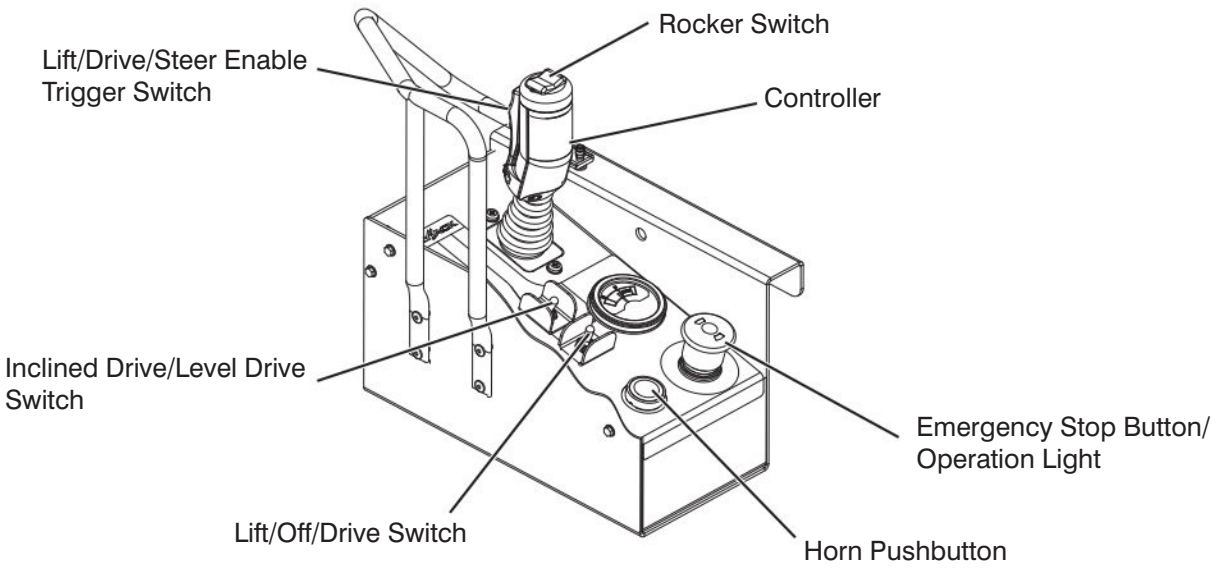
WARNING

Brakes will engage instantly when you release the enable trigger switch, causing MEWP to stop immediately.

1. Ensure path of intended motion is clear.
2. Activate and hold "" enable trigger switch.
3. Drive MEWP "" forward and then "" backward. Test brake by releasing controller handle.
   Result: MEWP should come to a stop. If MEWP pulls to one side while stopping, do not operate MEWP until brake adjustments have been checked.
4. Drive MEWP "" forward and then "" backward. Test brake again by releasing "" enable trigger switch only.

   Result: MEWP should come to an instant and abrupt stop. If MEWP does not stop immediately, or if MEWP pulls to one side while stopping, do not operate MEWP until brake adjustments have been checked.

Platform Control Console



- **Test Platform Raising/Lowering**

WARNING

Be aware of overhead obstructions or other possible hazards around the MEWP when lifting.

1. Select lift/off/drive switch to "" lift position.
2. Activate and hold "" enable trigger switch.
3. Push controller handle and raise the platform to an approximate height of 30.5 cm.
   Result: Platform should rise.
4. Pull controller handle and lower the platform fully.
   Result: Platform should lower.

- **Test Lowering Warning**

1. Raise the platform until approximately a height of 3 to 4 meters is reached then attempt to fully lower the platform.
   Result: Platform should stop lowering at a height of 2.5 meters high and an alarm should sound.
2. Release controller handle.

- **Test Horn**

1. Push "" horn push button.
   Result: Horn should sound.

- **Test Pothole Sensor**

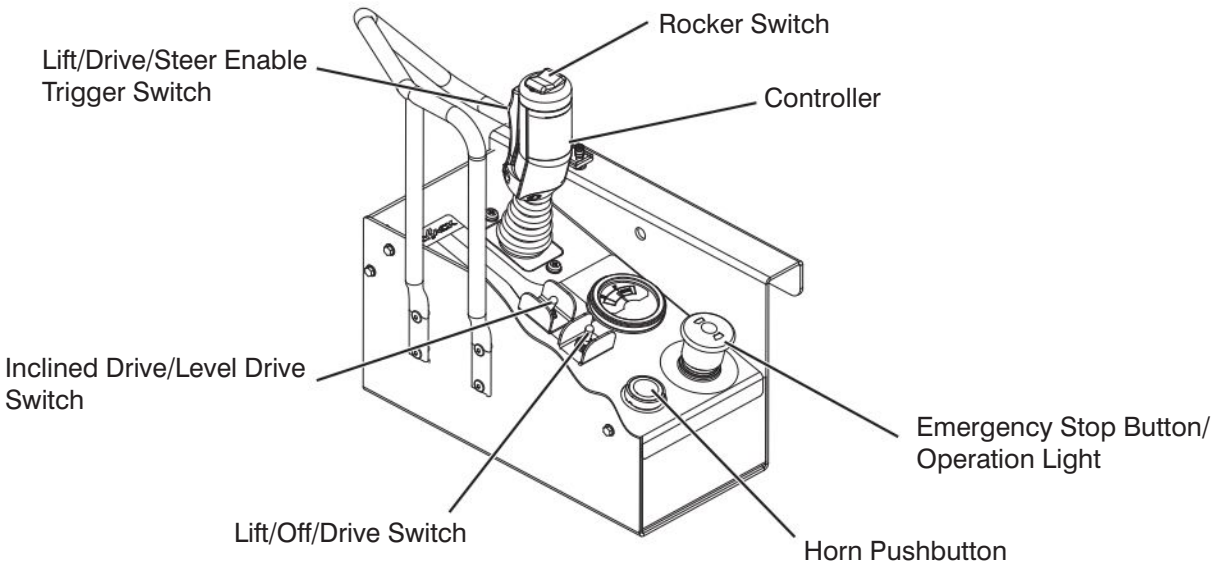
WARNING

Ensure that you maintain three points of contact to mount/dismount platform.

1. Use the ladder to dismount from platform and place a block, approximately 3.75 cm, under the hydraulic/electric tray.
2. Use the ladder of MEWP to access platform.
3. Close the gate.
4. Raise the platform until approximately a height of 7 feet (2 meters) is reached and attempt to drive forward or reverse.
   Result: MEWP should not move forward or backward.
5. Repeat the steps above with block placed under battery tray.
   Result: MEWP should not move forward or backward.

It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.

Platform Control Console



- **Test Elevated Drive Speed**

WARNING

Be aware of overhead obstructions or other possible hazards around the MEWP when lifting.

1. Ensure path of intended motion is clear.
2. Raise the platform until approximately a height of 7 feet (2 meters) is reached and attempt to drive forward or reverse.
   Result: MEWP should move slower than when it was in stowed position.

- **Test Load Sensing**

WARNING

Be aware of overhead obstructions or other possible hazards around the aerial platform when lifting.

1. Turn main power disconnect switch to "|" on position.
   Result: Light should flash once and beeper should sound for approximately 1 second.
2. Select and hold off/platform/base key switch " " to base position
3. Select and hold lower/neutral/raise switch " ↑" to raise position and raise the platform to a height of approximately 1 meter.
4. Turn main power disconnect switch to "○" off position.
5. While holding off/platform/base key switch " " to base position, and lower/neutral/raise switch to lower position " ↓", turn main power disconnect switch to "|" on position.
   Result: Platform should not lower. Flasher should flash continuously and the intermittent beeper should sound continuously.
6. Release the switches on base control console.
7. Select and hold off/platform/base key switch " " to base position and lower/neutral/raise switch to lower position " ↓" to fully lower the platform.
   Result: Platform should fully lower. Flasher should flash continuously and the intermittent beeper should sound continuously.

2.5 Winching and Towing Procedures

This section provides the operator with the Winching and Towing procedure, which includes instructions on how to manually release the brakes.

WARNING

Ensure platform is fully lowered before winching or towing. Sudden motion could cause the MEWP to become unstable. Death or serious injury could result.

WARNING

In emergency situations where MEWP functions are not available and lowering is impeded by an obstacle, utmost care must be taken to move MEWP far enough to clear the obstacle. In such cases, operation must be extremely smooth with no sudden movements and must not exceed a speed of 2”/sec (50 mm/sec).

WARNING

When pushing, winching or towing, do not exceed 2 mph (3.2 km/h).

WARNING

Do not push, winch or tow MEWP onto a slope, or brake the towing vehicle rapidly. Do not pull MEWP down an incline towards a winch.

2.5-1 To Release Free-wheeling Valve

1. Ensure MEWP is on level ground. Chock or block the wheels to keep MEWP from rolling.

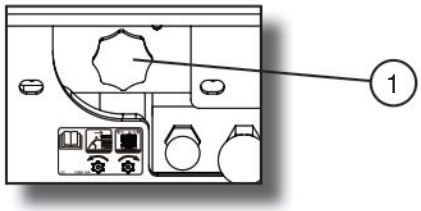


Figure 2-7. Free-wheeling Valve

2. **Free-wheeling Valve** - Turning valve knob counterclockwise (item 1) to a fully opened position allows fluid to flow through the wheel motors, thus providing “free-wheeling.”

WARNING

The free-wheeling valve must be closed tightly (clockwise) for normal operation.

2.5-2 To Release Brakes Manually

WARNING

Do not manually disengage brakes if the MEWP is on a slope.

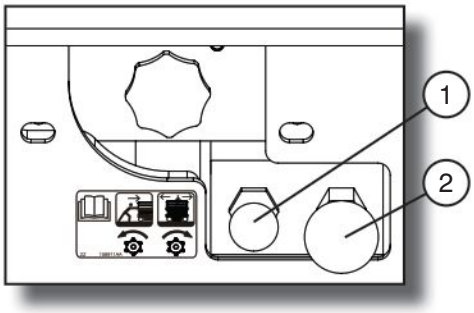


Figure 2-8. Brakes

WARNING

Brakes must be manually disengaged for pushing, winching or towing.

1. Ensure MEWP is on level ground. Chock or block wheels to keep MEWP from rolling.

2. Turn main power disconnect switch to "◯" off position.

3. Locate the brake manifold at the rear of the base.

4. Push in brake auto reset valve plunger (item 1).

5. Grasp brake hand pump (item 2) and rapidly depress until firm resistance is felt. The brakes are now released.

6. Remove wheel chocks or blocks, then push, winch or tow MEWP to desired location.

WARNING

Brakes must be reengaged immediately after reaching the desired location.

7. Position MEWP on a firm and level surface.

8. Chock or block wheels to prevent MEWP from rolling.

9. Reengage the brake by pulling out the brake auto reset valve plunger.

10. Close the free-wheeling valve.

2.6 Emergency Lowering Procedure

This section guides the operator on how to use the emergency lowering system. This system allows platform lowering in the event of an emergency or an electrical system failure.

WARNING

Keep clear of scissors mechanism when using emergency lowering system.

1. Remove any obstructions from a descending platform.

2. Extension platform(s) (if equipped) may need to be retracted or MEWP may need to be moved to clear the obstruction. Refer to Section 2.5 for winching and towing procedures.

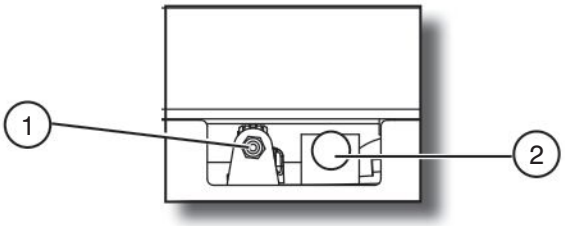


Figure 2-9. Emergency Lowering System

3. Push in "🔴" emergency stop button.

4. On hydraulic/electric tray, depress emergency lowering switch (item 1) to activate the auxiliary lowering valves. Pull out and hold the emergency lowering valve handle (item 2) to fully lower platform.

5. To restore normal operation:

a. Release emergency lowering switch (item 1) to de-activate the auxiliary lowering valves.

b. Release emergency lowering valve handle (item 2).

Notes

3.0 Operation

This section provides the necessary information needed to operate the MEWP. It is important that the user reads and understands this manual before operating the MEWP.

3.1 General

In order for this MEWP to be in good working condition, it is important that the operator meets the necessary qualifications and follow the maintenance and inspection schedule referred to in this manual.

3.1-1 Operator Qualifications

- Only trained and authorized personnel shall be permitted to operate an MEWP.
- Safe use of this MEWP requires the operator to understand the limitations and warnings, operating procedures and operator's responsibility for maintenance. Accordingly, the operator must understand and be familiar with this operating manual, its warnings and instructions, and all warnings and instructions on the MEWP.
- The operator must be familiar with employer's work rules and related government regulations and be able to demonstrate the ability to understand and operate this make and model of MEWP in the presence of a qualified/competent person.

3.1-2 Operator's Responsibility for Maintenance

WARNING

Maintenance must be performed by trained and competent personnel who are familiar with mechanical procedures.

Death or serious injury could result from the use of an MEWP that is not properly maintained or kept in good working condition.

- The operator must be sure that the MEWP has been properly maintained and inspected before using it.
- The operator must perform all the daily inspections and function tests found in Table 4.6, even if the operator is not directly responsible for the maintenance of this MEWP.

3.1-3 Maintenance and Inspection Schedule

- The inspection points covered in Table 4.6 indicate the areas of the MEWP to be maintained or inspected and at what intervals the maintenance and inspections are to be performed.
- The actual operating environment of the MEWP may affect the maintenance schedule.

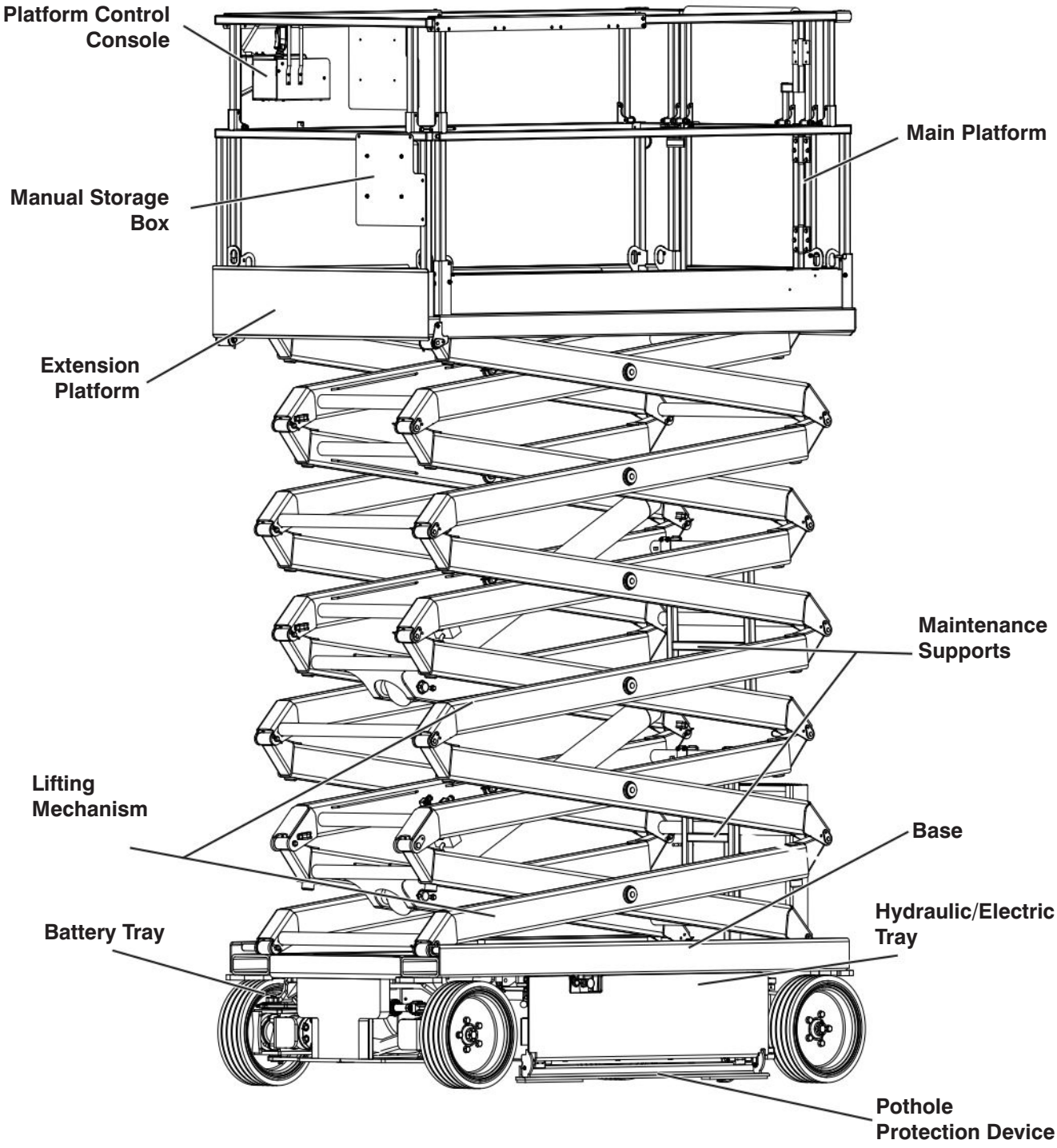
WARNING

Use original or manufacturer-approved parts and components for the MEWP.

3.1-4 Owner's Inspections

It is the responsibility of the owner to arrange daily, quarterly (or 150 hours) and annual inspections of the MEWP. Refer to Table 4.6 for recommended maintenance and inspection areas and intervals. A record of annual inspection is kept on a label located on the scissor assembly. Refer to Table 4.2 in this manual.

3.2 Major Components



SKYJACK Model SJIII 4740

3.3 Major Assemblies

The MEWP consists of three major assemblies: base, lifting mechanism and platform.

3.3-1 Base

The base is a rigid, one-piece weldment which supports two swing out trays:

The hydraulic/electric tray contains the hydraulic and electrical components. The battery tray contains four (4) 12 volt batteries and a 24V, 750W output charger. The front axle has two hydraulic motor-driven wheels, steerable by a hydraulic cylinder and steering links. The rear axle is fixed and has non-driven wheels, spring-applied, hydraulically released brakes.

3.3-2 Lifting Mechanism

The lifting mechanism is constructed of formed steel or tube sections making up a 6-level scissor-type assembly. The scissor assembly is raised and lowered by single-acting hydraulic lift cylinders with holding valves. A pump, driven by an electric motor, provides hydraulic power to the lift cylinders.

3.3-3 Platform

The platform is constructed of a tubular support frame, a skid-resistant “diamond plate” deck surface and 39” hinged guardrails with 6” toe boards and mid-rails. The platform can be entered from the rear through a spring-returned gate with latch. The platform is also equipped with a manual extension platform. An AC outlet is also located on the platform.

3.4 Serial Number Nameplate

The serial number nameplate, located at the rear of the MEWP, lists the following:

- Model number
- Serial number
- MEWP weight
- Maximum drivable height
- Maximum capacities
- Maximum number of persons permissible on the platform
- Voltage
- System pressure
- Lift pressure
- Maximum platform height
- Maximum wheel load
- Date manufactured

3.5 Component Identification

The following descriptions are for identification, explanation and locating purposes only.

3.5-1 Electrical Panel

This panel is located in the hydraulic/electric tray. It contains the following controls:

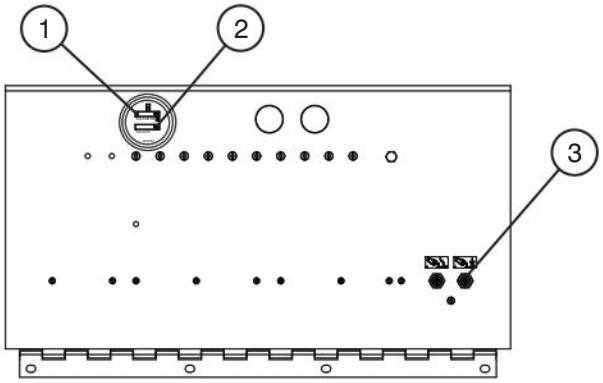


Figure 3-1. Electrical Panel

1. **Hourmeter** - This gauge records accumulated operating time of the MEWP.

2. **Emergency Lowering Counter** - This gauge increments each time the emergency power unit is activated while MEWP is in work mode and overloaded.

3. **Circuit Breaker Resets** - In the event of power overload or positive circuit grounding, the circuit breaker pops out. Push the breaker back in to reset.

3.5-2 Battery Charger

The charger (item 1) is located beside the batteries inside the battery tray. Refer to Section 3.13a-2 or Section 3.13b-2 for battery-charging operation.

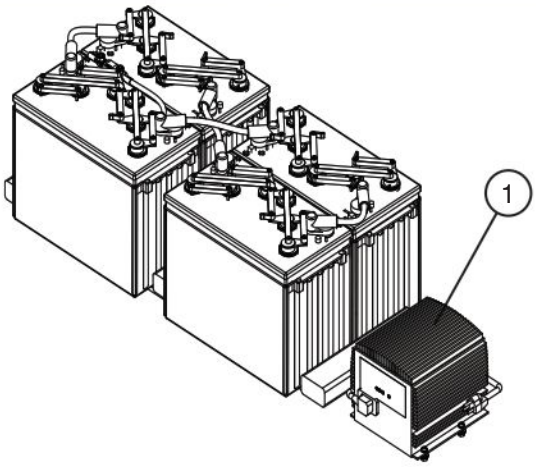


Figure 3-2a. Battery Charger

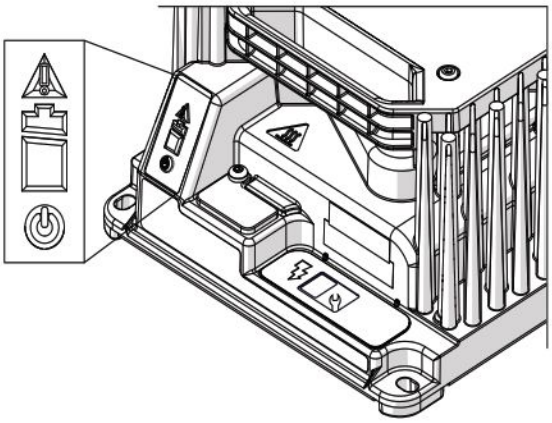


Figure 3-2b. Battery Charger

3.5-3 AC Outlet on Platform

This outlet is a source of AC power on the platform.

WARNING

For EE rated MEWP, do not use AC power in hazardous locations.

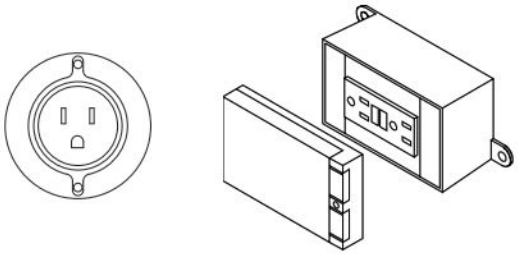


Figure 3-3. AC Outlet on Platform

3.5-4 Pothole Protection Device

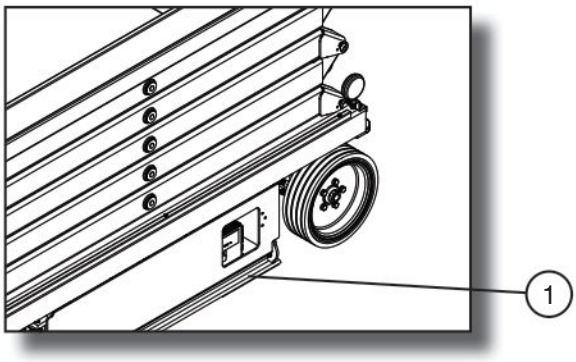


Figure 3-4. Pothole Protection Device

1. **Pothole Protection Device** - This device consists of a set of mechanically actuated steel weldments located under the hydraulic/electric tray and battery tray. These weldments will automatically rotate for reduced ground clearance when elevating the MEWP. If the pothole protection device has not fully lowered, the drive function will be disabled.

WARNING

Crushing Hazard - Personnel on ground must stay clear of pothole protection device.

WARNING

Do not drive elevated in areas where electrical cords or debris are in the path of travel.

Maintenance of the Pothole Protection Device

As with all safety devices, periodic inspection and maintenance is required to ensure the proper operation of the pothole protection device. This mechanism is designed to reduce ground clearance and assist in the stability of an elevated MEWP in the event the MEWP encounters a “drop-off” or “pothole.” The nature of this safety feature relies on maintaining a consistent ground clearance, therefore, if the MEWP ever does come to rest on the pothole device, the platform should be immediately lowered and “locked out” to prevent further use until a complete inspection of the mechanism is performed by a qualified/competent technician.

3.5-5 Maintenance Supports

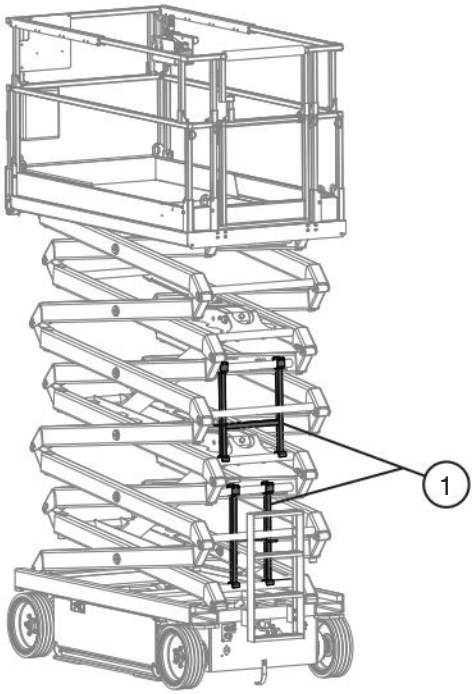


Figure 3-5. Maintenance Supports

1. **Maintenance Supports** - The maintenance supports are a safety mechanism designed to support the scissor assembly. When properly positioned they can support the scissor assembly and empty platform. The maintenance supports must be used when inspection and/or maintenance is to be performed within the lifting mechanism. Refer to Section 3.12 for procedure on how to use and store the maintenance supports.

WARNING

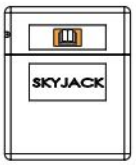
The maintenance support must be used when inspection and/or maintenance or repairs are to be performed within the lifting mechanism. Failure to use this safety mechanism could result in death or serious injury.

WARNING

Do not reach through the scissor assembly when the platform is raised without the maintenance support properly positioned. Failure to avoid this hazard could result in death or serious injury.

3.5-6 Manual Storage Box

This weather-resistant box is mounted on the platform railings. It contains operating manual, EC declaration and other important documents. The operating manual for this make and model of MEWP must remain with the MEWP and should be stored in this box.



3.5-7 Folding Guardrail System

This system, when folded down, reduces the height of the retracted MEWP for transporting and traveling through doorways only. Refer to Section 3.9 for guardrail folding procedure.

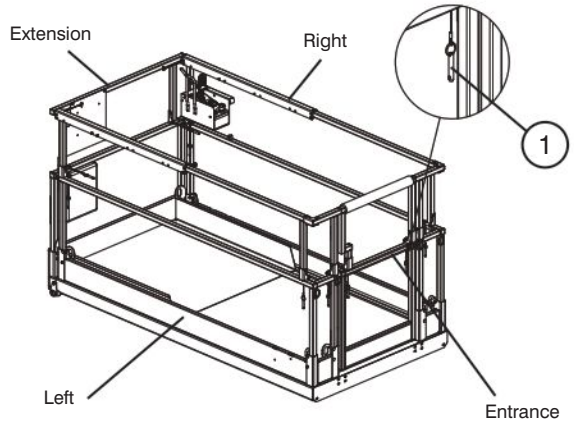


Figure 3-6. Folding Guardrail System

1. **Guardrail Locking Pin with Lanyard** - This pin is used to lock the guardrail in place.

WARNING

The scissor assembly must be fully lowered before raising or lowering the guardrails.

WARNING

Before operating this MEWP, check the guardrail system for loose or missing locking pins. The guardrail system must be upright and all pins must be locked in place. Death or serious injury could result if the guardrail system is not upright or properly locked.

3.5-8 Fall Protection Anchorage

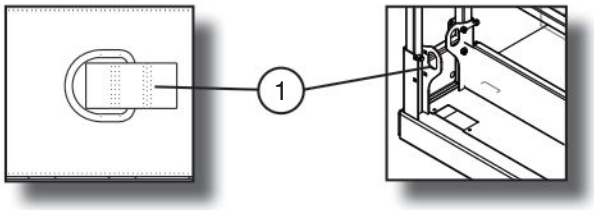


Figure 3-7. Fall Protection Anchorage

1. **Fall Protection Anchorage** - Use this as an attachment point for a fall restraint system. Do not attach anchorage connectors to any other point on the platform. Do not use this to lift, anchor, secure or support the platform or any other apparatus or material.

WARNING

The fall protection anchorage is to be used for restraint, within the limits of the platform, only.

3.6 Component Identification (Optional Equipment/Attachments)

This section describes the components that are optional to MEWPs.

3.6-1 Motion Alarm (If Equipped)

The alarm produces an audible sound when any control function is selected. On MEWPs with certain options, a flashing amber light will accompany this alarm.

3.6-2 Using Optional Control Box with Long Cable from Ground:

WARNING

Skyjack scissor lifts are to be operated from the operator's position on the platform with the control box secured on the mounting bracket at the front right portion of the platform. Operation of the unit from the ground is permissible only when maintaining the lift or, in limited circumstances, when an obstruction precludes the safe operation of the lift from the operator's position on the platform. Operation from the ground is to be performed as set forth in the Operating Manual.

1. Before operating this MEWP, perform the following steps:
   - Visual and daily maintenance inspections (see Section 2.3)
   - Function tests (see Section 2.4).

2. Ensure the platform is in the fully-stowed (lowered) position.

WARNING

To protect against unintended movement of the MEWP, push in the emergency stop button after you have arrived at your desired location.

3. Disconnect and remove platform control console from the mounting bracket at the front right portion of the platform.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

Operation from the Ground:

4. The control box with long cable may be connected to the lower base control connector or to the platform control connector.

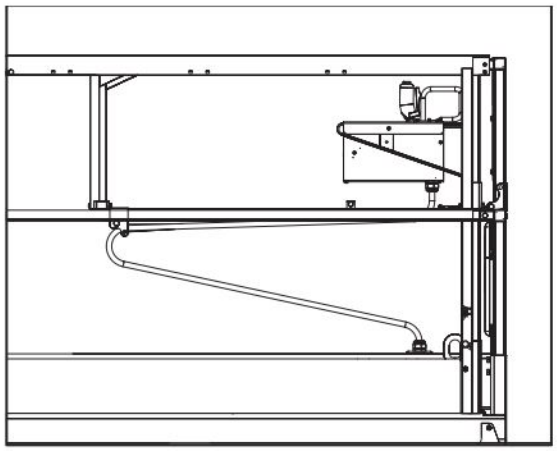


Figure 3-10. Control Box with Long Cable

WARNING

- **Ensure the operator and control box console are properly oriented in the direction the MEWP is facing (see Figure 3-11).**
- **Do not drive the MEWP toward yourself.**
- **Avoid crushing hazards; stand clear from the MEWP and out of the direction of travel.**
- **During loading/unloading operations using a ramp, ensure all personnel (including operator) stand away from the direction of any potential fall-over of the MEWP from the ramp or movement of the MEWP down the ramp.**
- **Ensure that the control box with long cable does not become entangled with the MEWP or any surrounding objects.**

5. Perform a thorough jobsite inspection prior to operating the MEWP to identify potential hazards in your work area.
6. Cordon-off the pathway in which you intend to travel.
7. Ensure there are no personnel in the intended path of travel.
8. Notify those around the pathway that you will be moving the MEWP.
9. Use a spotter to guide movement where necessary. Ensure the spotter remains at a safe distance.
10. Once safely reached your destination, push in emergency stop button and turn main power disconnect switch to "◯" off position.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

11. Mount the platform control console to mounting bracket at the front right portion of the platform.

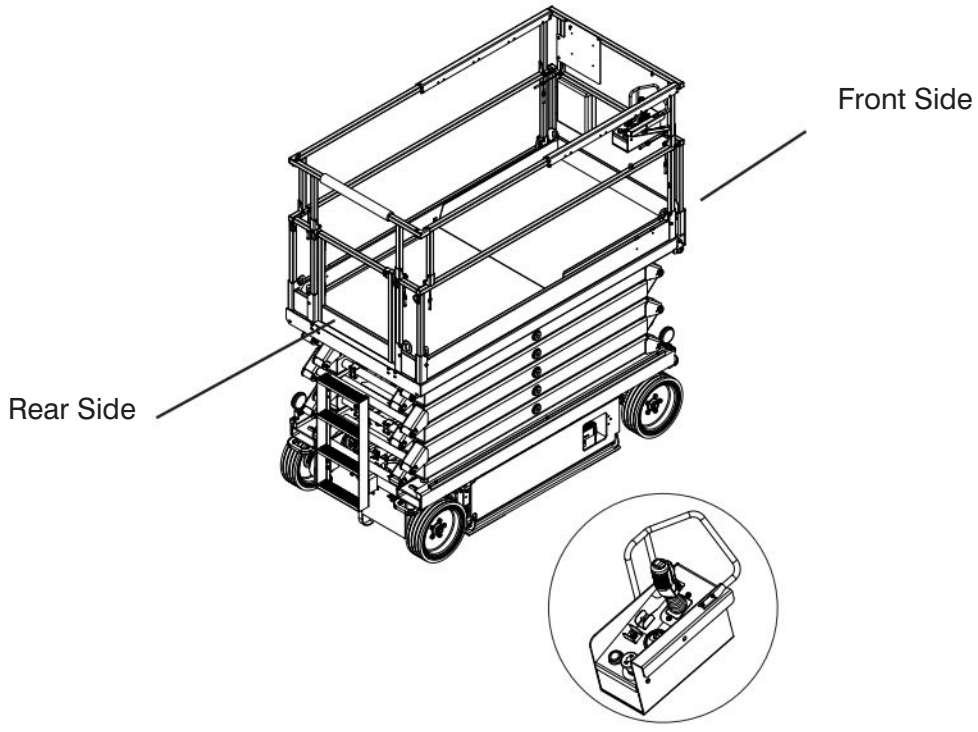


Figure 3-11. Control Box with Long Cable Outside Platform

3.7 Operator's Responsibility

It is the responsibility of the operator, prior to each work shift, to perform the following:

1. Visual and Daily Maintenance Inspections

- are designed to discover any damage of components before the MEWP is put into service.
- are done before the operator performs the function tests.

WARNING

Failure to locate and repair damage, and discover loose or missing parts may result in an unsafe operating condition.

2. Function Tests

- are designed to discover any malfunctions before the MEWP is put into service.

IMPORTANT

The operator must understand and follow the step-by-step instructions to test all MEWP functions.

The operator should make a copy of the Operator's Checklist (see Table 4.7) and fill out the visual and daily maintenance inspections and the function tests sections while performing the items outlined in Section 2.3 and Section 2.4.

IMPORTANT

If MEWP is damaged or any unauthorized variation from factory-delivered condition is discovered, MEWP must be tagged and removed from service.

Repairs to the MEWP may only be made by a qualified/competent service technician. After repairs are completed, the operator must perform visual and daily maintenance inspections & function tests again.

Scheduled maintenance inspections shall only be performed by qualified/competent service technician (see Table 4.6).

3.8 Start Operation

Carefully read and completely understand the operating manual and all warnings and instruction labels (refer to Section 5 - Labels) on the MEWP.

WARNING

Do not operate this MEWP without proper authorization and training. Failure to avoid this hazard could result in death or serious injury.

Before operating this MEWP, perform the following steps:

1. Visual and daily maintenance inspections (see Section 2.3)
2. Function tests (see Section 2.4)
3. Job site inspection

   It is the responsibility of the operator to perform a job site inspection and avoid the following hazardous situations:

   - holes or drop-offs
   - ditches or soft fills
   - floor obstructions, bumps or debris
   - overhead obstructions
   - electrical cords, hoses and high voltage conductors
   - hazardous locations (see NFPA 505)
   - inadequate surface support to withstand all load forces imposed by the MEWP
   - wind and weather conditions
   - the presence of unauthorized personnel
   - other possible unsafe conditions

WARNING

An operator should not use any MEWP that:

- **does not appear to be working properly.**
- **has been damaged or appears to have worn or missing parts.**
- **has alterations or modifications not approved by the manufacturer.**
- **has safety devices which have been altered or disabled.**

Failure to avoid these hazards could result in death or serious injury.

3.8-1 To Activate Base Control Console

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

1. Use the ladder of MEWP to access platform.
2. Close the gate.
3. On platform control console, pull out "" emergency stop button.
4. Use the ladder to dismount from platform.
5. Turn main power disconnect switch to "|"on position.
6. On base control console, pull out "" emergency stop button.

3.8-2 To Raise or Lower Platform Using Base Control Console

WARNING

Be aware of overhead obstructions or other possible hazards around the MEWP when lifting.

WARNING

Do not lower the platform unless the area is clear of personnel and obstructions.

1. Activate base control console (refer to Section 3.8-1).
2. Select and hold off/platform/base key switch to "" base position.
3. Select and hold lower/neutral/raise switch to either "" raise or "" lower position. Release switch to stop.

Lowering Warning System - A lowering warning system automatically stops lowering function before reaching fully retracted position and sounds the alarm. After the operator has released down controls and taken time to check that no person is near the scissors, the lowering function can be reactivated.

3.8-3 To Activate Platform Control Console

1. Turn main power disconnect switch to "|"on position.
2. On base control console, pull out "" emergency stop button.
3. Select off/platform/base key switch to "" platform position.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

4. Use the ladder of MEWP to access platform.
5. Close the gate.
6. On platform control console, pull out "" emergency stop button.

3.8-4 To Raise or Lower Platform Using Platform Control Console

WARNING

Be aware of overhead obstructions or other possible hazards around the MEWP when lifting.

WARNING

Do not lower the platform unless the area below is clear of personnel and obstructions.

1. Activate platform control console (refer to Section 3.8-3).
2. Select lift/off/drive switch to "" lift position.
3. Activate and hold "" enable trigger switch.
4. Move controller handle forward or backward until desired height is reached.

NOTE

Lowering is not proportional.

Lowering Warning System - A lowering warning system automatically stops lowering function before reaching fully retracted position and sounds the alarm. After the operator has released down controls and taken time to check that no person is near the scissors, the lowering function can be reactivated.

5. Return controller to neutral center position to stop. Release "" enable trigger switch.

WARNING

To protect against unintended movement of the MEWP, push in the emergency stop button after you have arrived at your desired location or elevation.

NOTE

If the tilt alarm sounds and the platform does not, or only partially raises, immediately lower the platform completely and ensure that the MEWP is on a firm level surface.

3.8-5 To Drive Forward or Backward

WARNING

Be aware of blind spots when operating the MEWP.

WARNING

Ensure that there are no personnel or obstructions in the path of travel, including blind spots.

1. Activate platform control console (refer to Section 3.8-3).
2. Select lift/off/drive switch to "↑↓" drive position.
3. Activate and hold "" enable trigger switch.
4. Move controller handle "↑" forward/up or "↓" backward/down to desired speed and direction of MEWP travel.
5. Return controller to neutral center position to stop. Release "" enable trigger switch.

WARNING

To protect against unintended movement of the MEWP, push in the emergency stop button after you have arrived at your desired location or elevation.

3.8-6 To Steer

1. Activate platform control console (refer to Section 3.8-3).
2. Select lift/off/drive switch to "↑↓" drive position.
3. Activate and hold "" enable trigger switch.
4. Press "" rocker switch on top of controller handle in either direction to steer.

NOTE

Steering is not proportional. Driving and steering may be active at the same time.

3.8-7 To Select Level Drive or Inclined Drive Mode (If Equipped)

1. **Level Drive Mode**
   Select level drive mode when traveling on flat surface.

   To activate level drive mode, select inclined drive/level drive switch to "" level drive (high speed/low torque) position.

WARNING

MEWP must be in fully retracted position when operated on any grade. Driving while elevated on any grade may result in death or serious injury.

2. **Inclined Drive Mode**
   Select inclined drive mode when climbing grades or when loading or unloading the MEWP.

   To activate inclined drive mode, select inclined drive/level drive switch to "" inclined drive (low speed/high torque) position.

WARNING

To protect against unintended movement of the MEWP, push in emergency stop button after you have arrived at your desired location or elevation.

3.8-8 To Extend/Retract Manual Extension Platform

DANGER

Crushing Hazard - Extension platform must not be retracted manually from the ground.

1. To extend/retract manual extension platform, remove retaining locking pins and push/pull extension platform using the push bar or sliding handrails to one of four desired locking positions.

2. Upon extension or retraction, reinsert locking pins. Insert pin on one side of MEWP in front of upright bar and the pin on the other side of MEWP behind the upright bar to prevent accidental movement, in either direction, of manual extension platform during travel or transport. Refer to Figure 3-12 for a configuration example.

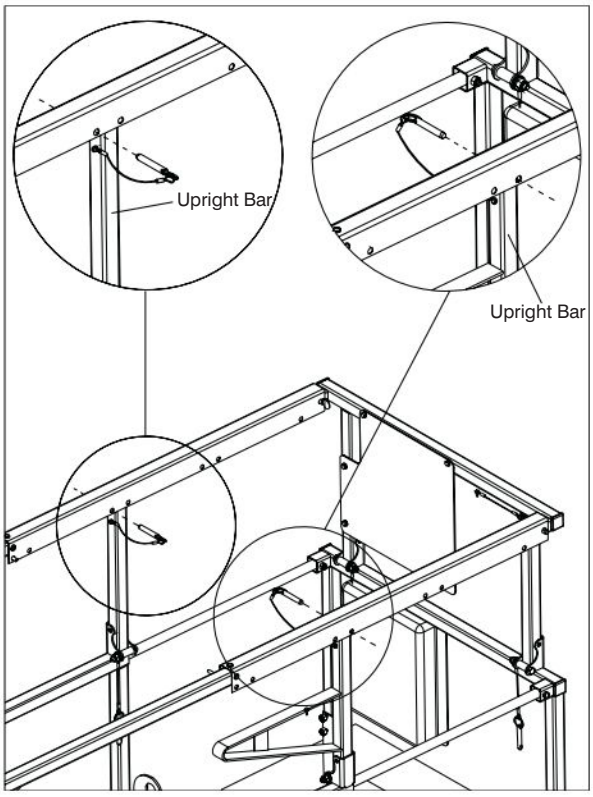


Figure 3-12. Variable Position Manual Extension Platform

3.8-9 Shutdown Procedure

1. Completely lower the platform.

2. On platform control console, push in "" emergency stop button.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

3. Use the ladder to dismount from platform.

4. On base control console, select off/platform/base key switch to "◯" off position and remove the key.

5. Turn main power disconnect switch to "◯" off position.

3.9 Guardrail Folding Procedures

When folded down, the folding guardrail system reduces the height of the retracted MEWP for transporting only.

WARNING

Any lowered guardrail will create a fall hazard. Remain away from the side of the platform while raising or lowering the guardrails to avoid falling.

If the mid-rail height is 0.68 m (measured from the platform floor to the top of the mid-rail), refer to Section 3.9-1.

If the mid-rail height is 0.53 m (measured from the platform floor to the top of the mid-rail), refer to Section 3.9-2.

3.9-1 Guardrail folding procedure for MEWPs with mid-rail height of 0.68 m.

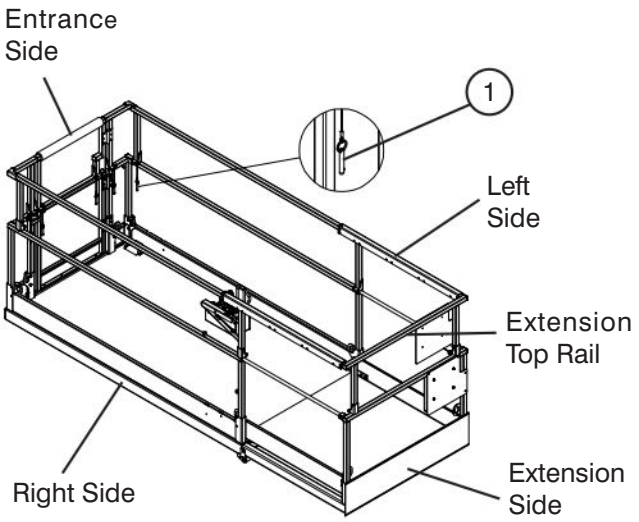


Figure 3-13a. Folding Guardrail System

1. **Guardrail Locking Pin with Lanyard** - This pin is used to lock the guardrail in place.

WARNING

The scissor assembly must be fully lowered before raising or lowering the guardrails.

WARNING

Before operating this MEWP, check the guardrail system for loose or missing locking pins. The guardrail system must be upright and all pins must be locked in place. Death or serious injury could result if the guardrail system is not upright or properly locked.

To fold the guardrail system down:

1. Ensure MEWP is on level ground.
2. Ensure extension platform is fully retracted.
3. Ensure either base or platform Emergency Stop button is depressed.
4. Turn main power disconnect switch to "○" off position.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

5. Use the ladder of MEWP to access platform.
6. Close the gate.
7. Remove the platform control console and lay it down on the platform.

WARNING

Any lowered guardrail will create a fall hazard. Use caution when exiting or entering the platform when the guardrails are lowered.

8. Remove left and right side pins A and B (if equipped). (Refer to Figure 3-13b) and pull back the extension top rail to clear front railing. Ensure pin C is installed to secure the extension handrail.

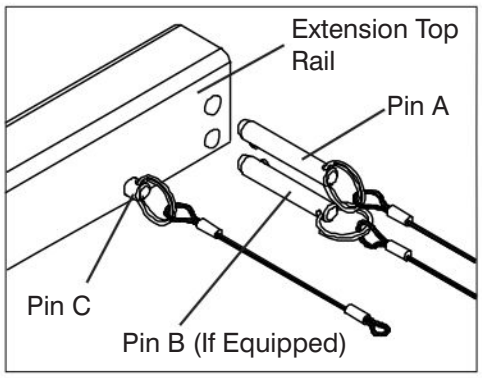


Figure 3-13b. Extension Top Rail Pins

9. Exit the platform.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

WARNING

Operator must be at eye-level height (at a minimum) to the midrail, with firm footing, and have both hands free in order to hold down the guardrails from outside of the aerial platform. It may be necessary to use a stable elevated surface that provides firm footing for the operator to be at an appropriate height, with both hands free.

10. Using a stable elevated surface that provides firm footing, remove the locking pins from the entrance side and fold down the rear gates.

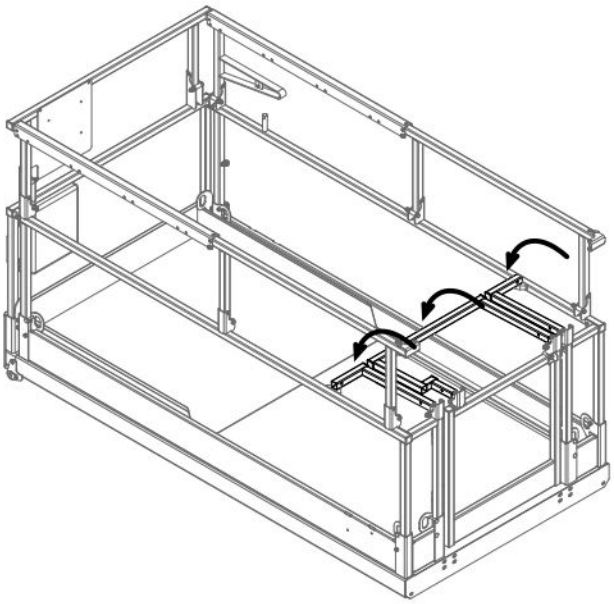


Figure 3-13c. Rear Gate Folded Down

11. Remove locking pin from right side guardrail and fold it down.

12. Remove locking pin from left side guardrail and fold it down.

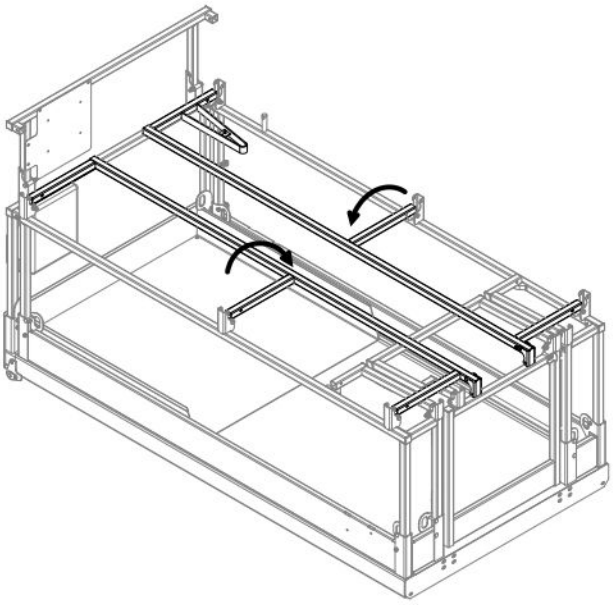


Figure 3-13d. Right Side & Left Side Guardrails Folded Down

13. Fold down extension side guardrail and insert the locking pin from outside inwards to lock guardrail into place on the mounting post. Ensure that the detent ball of the pin is all the way through.

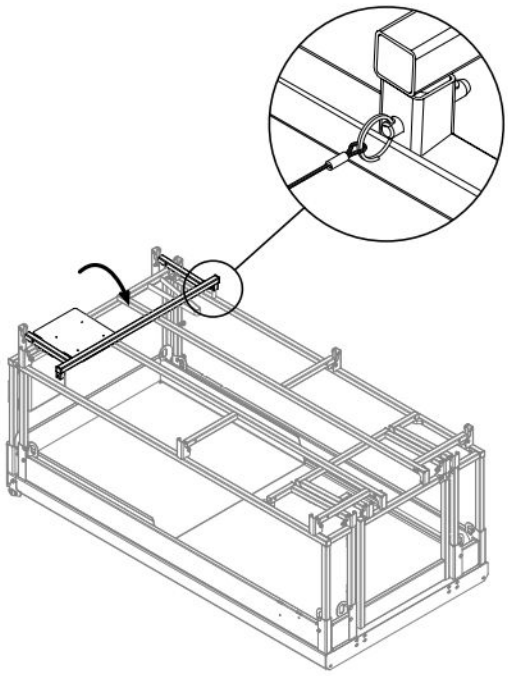


Figure 3-13e. Guardrails Folded Down

To raise the guardrail system up:

1. Ensure MEWP is on level ground.

2. Ensure extension platform is fully retracted.

3. Ensure either base or platform Emergency Stop button is depressed.

4. Turn main power disconnect switch to "◯" off position.

WARNING

Operator must be at eye-level height (at a minimum) to the midrail, with firm footing, and have both hands free in order to hold down the guardrails from outside of the aerial platform. It may be necessary to use a stable elevated surface that provides firm footing for the operator to be at an appropriate height, with both hands free.

5. Remove locking pin from mounting post and carefully raise extension guardrail up and lock into place with locking pins ensuring that the detent ball of each pin is all the way through.

6. Carefully raise right side and left side guardrails up and lock into place with locking pins ensuring that the detent ball of each pin is all the way through

7. Carefully raise upper left hand and right hand guardrail as well as entrance guardrail up and lock into place with locking pins ensuring that the detent ball of each pin is all the way through.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

8. Use the ladder of MEWP to access platform.

9. Close the gate.

10. Mount the platform control console at the front right of the platform. Lock it in place.

WARNING

Before operating this MEWP, check the guardrail system for loose or missing locking pins. The guardrail system must be upright and all pins must be locked in place. Death or serious injury could result if the guardrail system is not upright or properly locked.

3.9-2 Guardrail folding procedure for MEWPs with mid-rail height of 0.53 m.

When folded down, the folding guardrail system reduces the height of the retracted MEWP for transporting only.

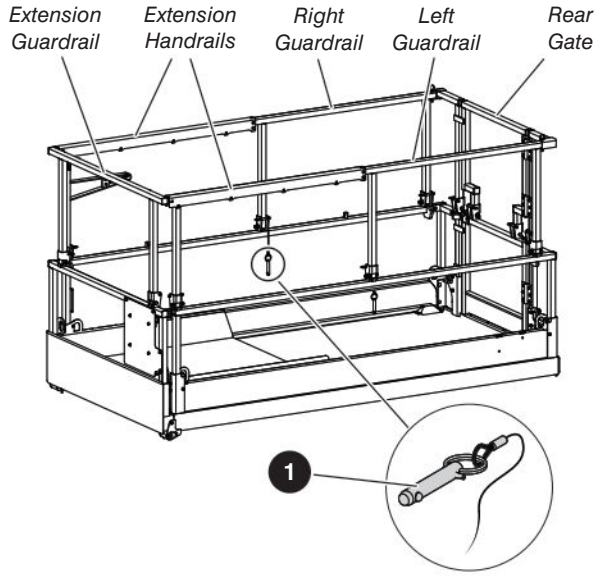


Figure 3-14. Folding Guardrail System

❶ **Guardrail Locking Pin with Lanyard:** This pin is used to lock the guardrails in place.

WARNING

The scissor assembly must be fully lowered before raising or lowering the guardrails.

WARNING

Any lowered guardrail will create a fall hazard. Remain away from the side of the platform while raising or lowering the guardrails to avoid falling.

To Fold the Guardrail System Down:

1. Ensure MEWP is on level ground.
2. Ensure extension platform is fully retracted.
3. Ensure emergency stop button is depressed.
4. Turn main power disconnect switch to off position.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

5. Use the ladder of MEWP to access platform.
6. Close the gate.
7. Remove locking pins from control box mount ❷ and control cable railing clamp ❸. Lay the control box down on the platform.

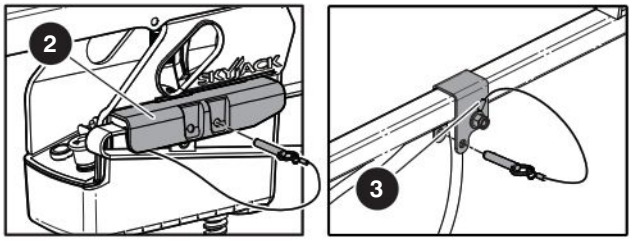


Figure 3-15. Control box mount and control cable railing clamp locking pin locations

8. Remove both pins from the extension handrails.

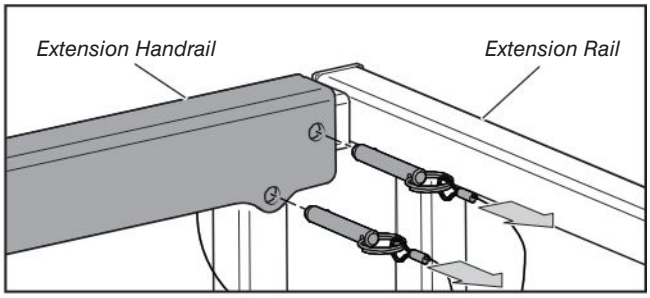


Figure 3-16. Extension handrail locking pin locations

9. Pull back the extension handrails, and lock into place by installing lower pin ❹. Ensure the detent ball of the pin is all the way through.

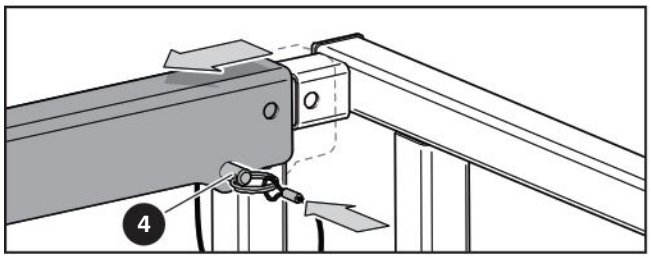


Figure 3-17. Extension handrail locked into place.

10. Remove both upper rear gate pins ❺.

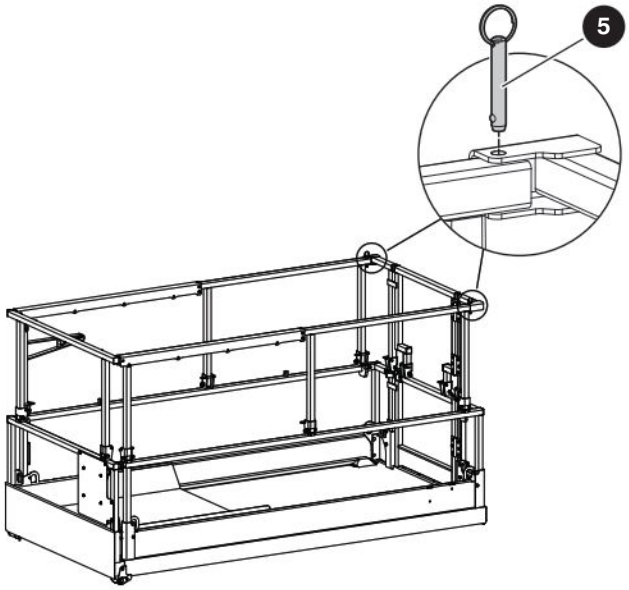


Figure 3-18. Upper rear gate locking pin locations

11. Exit the platform.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount the platform.

WARNING

Operator must be at eye-level height (at a minimum) to the mid-rail, with firm footing, and have both hands free in order to fold down the guardrails from outside the MEWP. It may be necessary to use a stable elevated surface that provides firm footing for the operator to be at an appropriate height, with both hands free.

12. Use a stable surface that provides firm footing to access the remaining pins and rails.

13. Move to the left side of the MEWP. Remove the front and center mid-rail pins. Then, remove the rear pin. Hold the vertical bar of the extension guardrail with one hand and fold down the left guardrail with the other hand (refer to 3-19 for hand positions). Lock into place by installing mid-rail pins ❻. Ensure the detent ball of the pin is all the way through.

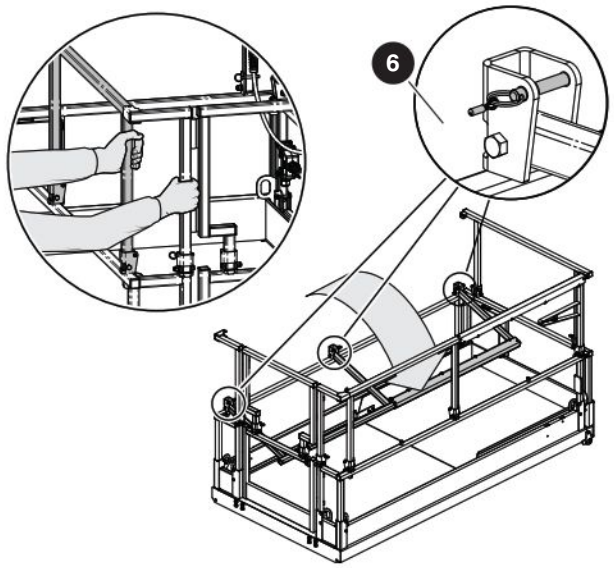


Figure 3-19. Fold down the left guardrail.

14. Move to the right side of the MEWP. Remove the front and center mid-rail pins. Then, remove the rear pin. Hold the vertical bar of the extension guardrail with one hand and fold down the right guardrail with the other hand (refer to 3-19 for hand positions). Lock into place by installing mid-rail pins ❼. Ensure the detent ball of the pin is all the way through.

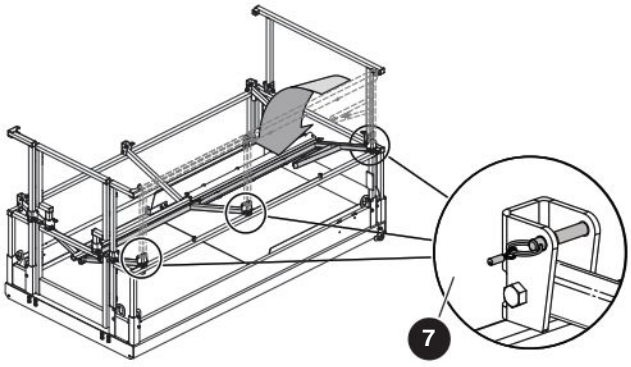


Figure 3-20. Fold down the right guardrail.

15. Remove the remaining mid-rail pins from rear guardrails:

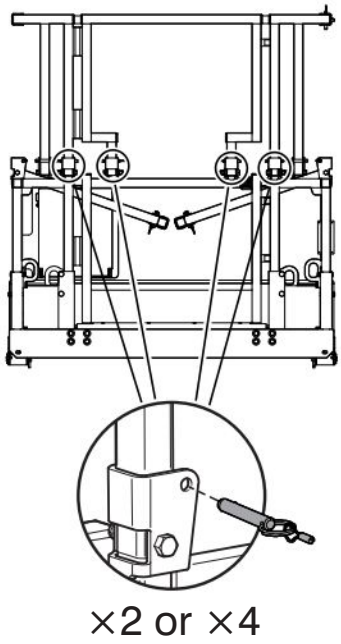


Figure 3-21. Remaining mid-rail locking pin locations

NOTE

MEWPs equipped with the half gate option have 2 pins to remove on the rear gate. MEWPs equipped with the full gate option have 4 pins to remove on the rear gate.

16. Hold the mid-rail with one hand and use the other hand to fold down the rear gate. Refer to Figure 3-22 for hand positions. Lock into place by installing pins ❽. Ensure the detent ball of the pin is all the way through.

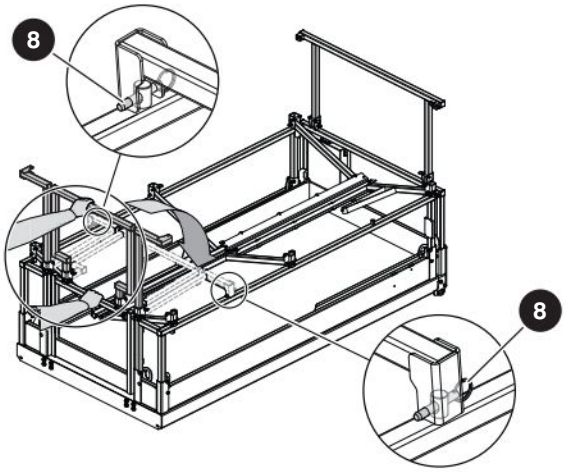


Figure 3-22. Fold down the rear gate.

17. Remove locking pins from extension guardrail ❾. Hold the mid-rail with one hand and fold down the guardrail with the other hand (refer to 3-22 for hand positions). Insert pin ❿ to lock the guardrail into place on the mounting post. Ensure that the detent ball of the pin is all the way through.

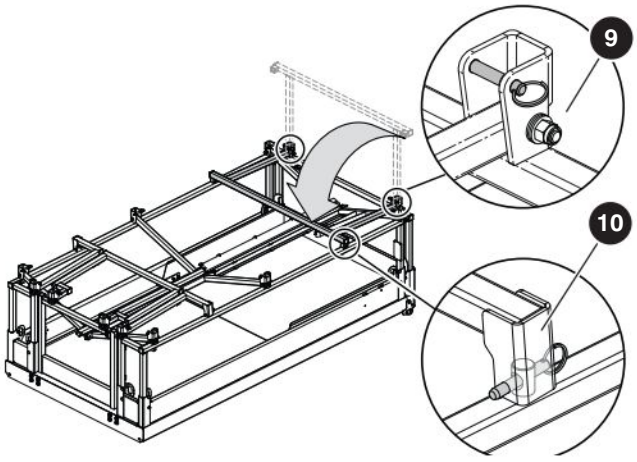


Figure 3-23. Fold down the extension guardrail and lock in place.

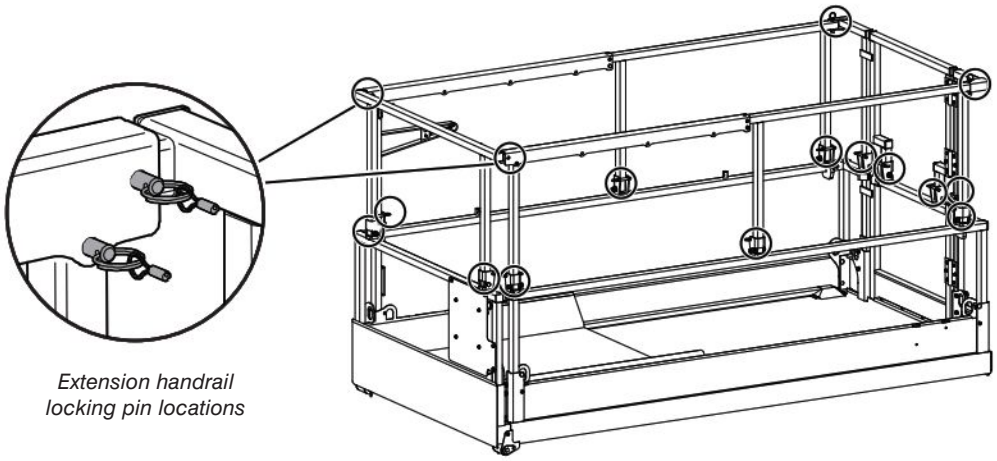


Figure 3-24. Guardrail Locking Pin locations

To Raise the Guardrail System Up:

CAUTION

Ensure each locking pin is securely installed with the detent ball of each locking pin all the way through.

1. Ensure MEWP is on level ground.
2. Ensure extension platform is fully retracted.
3. Ensure emergency stop button is depressed.
4. Turn main power disconnect switch to off position.

WARNING

Operator must be at eye-level height (at a minimum) to the mid-rail, with firm footing, and have both hands free in order to fold down the guardrails from outside the MEWP. It may be necessary to use a stable elevated surface that provides firm footing for the operator to be at an appropriate height, with both hands free.

5. Remove locking pin from mounting post and carefully raise extension guardrail up. Lock into place with both extension mid-rail pins.
6. Carefully raise the rear gate and lock into place with both rear gate mid-rail pins.
7. Carefully raise right guardrail up and insert right mid-rail pins, located at the front, center, and back.
8. Carefully raise left guardrail up and insert left mid-rail pins, located at the front, center, and back.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

9. Use ladder of MEWP to access platform.
10. Close the gate.
11. Install both upper rear gate pins.
12. Remove locking pins from the extension handrails and slide forward. Reinstall pins as shown in 3-24.
13. Mount the control console at the front right of the platform. Insert pins to lock both the control console ❶ and railing clamp ❷ into place.

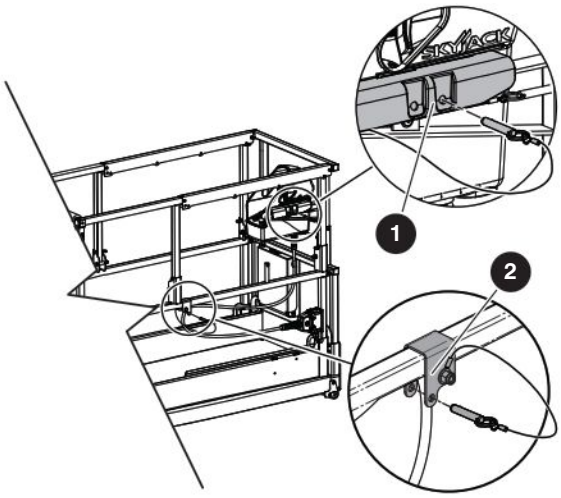


Figure 3-25. Control box mount and control cable railing clamp locking pin locations

14. Verify all guardrail locking pins are in place (refer to Figure 3-24).

NOTE

MEWPs equipped with the half gate option have 2 pins to remove on the rear gate. MEWPs equipped with the full gate option have 4 pins to remove on the rear gate.

WARNING

Before operating this MEWP, check the guardrail system for loose or missing locking pins. The guardrail system must be upright and all pins must be locked in place. Death or serious injury could result if the guardrail system is not upright or properly locked.

3.10 Loading/Unloading

Know and heed all national, state or territorial/provincial and local rules which apply to your loading/unloading of MEWPs.

Only qualified/competent personnel shall operate the MEWP during loading/unloading.

Be sure vehicle capacity and loading equipment hoists, chains, straps, etc., are sufficient to withstand maximum MEWP weight.

The transport vehicle must be parked on a level surface and must be secured to prevent rolling while MEWP is being loaded/unloaded.

3.10-1 Lifting

WARNING

Only qualified/competent rigger shall operate machinery during lifting.

When it is necessary to lift the Skyjack MEWP the following conditions must be met:

- The platform must be fully lowered.
- The main power disconnect switch must be in "◯" off position.
- The hydraulic/electric and battery trays must be closed and securely latched.
- The extension platform must be retracted and secured.
- The platform control console must be secured to the railings or removed.
- The platform must be cleared of all personnel, tools and materials.
- The lifting/rigging must be attached to all four lifting points as illustrated in Figure 3-26.

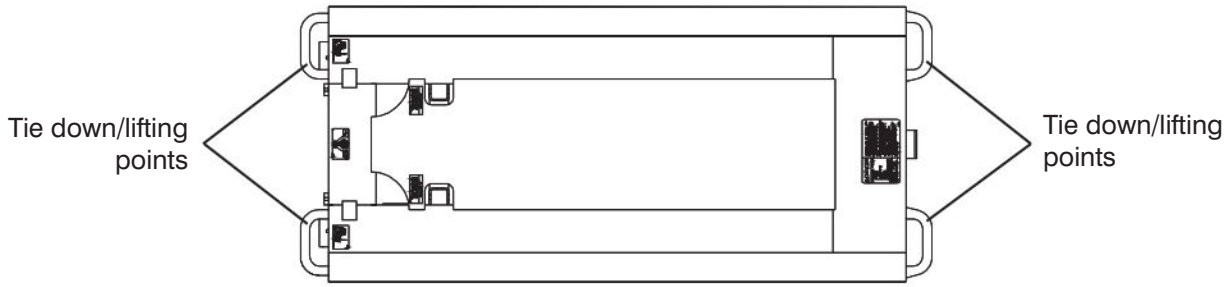


Figure 3-26. Tie Downs/Lifting Points

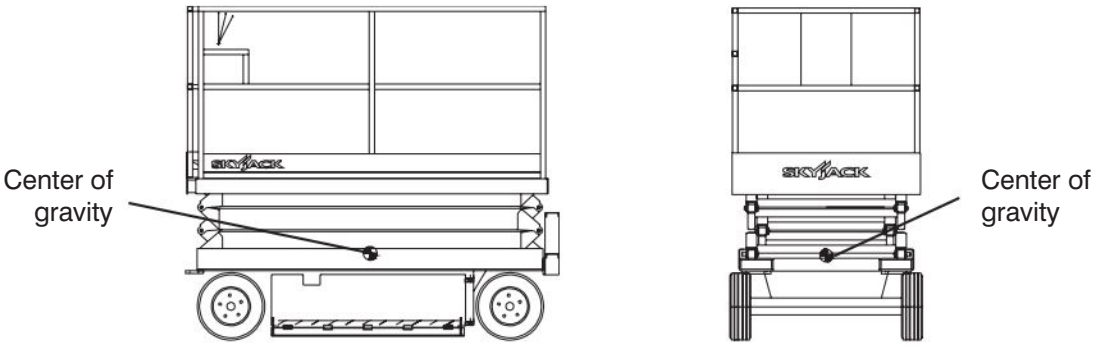


Figure 3-27. Center of Gravity

NOTE

The mass of the MEWP is as per Table 4.3. The center of gravity is approximately located in the middle of the MEWP, front to back and side to side, as illustrated in Figure 3-27. Vertically, the center of gravity is approximately just above the base chassis.

NOTE

The MEWP can be lifted with a forklift from the sides but Skyjack does not recommend this use. Lift with forks in designated pockets as illustrated in Figure 3-28.

3.10-2 Driving

Before driving the MEWP:

- Ramp or dock capacity should be sufficient to withstand maximum MEWP weight.
- Ramp should be equipped with side guards to prevent inadvertent fall from the ramp.
- Incline should not exceed MEWP gradeability (refer to Table 4.3).
- MEWP brakes should be checked for proper operation.
- MEWP speed should be on high torque setting (if equipped).

WARNING

When transporting, the MEWP must be secured to the truck or trailer deck. Tie downs are available as illustrated in Figure 3-26.

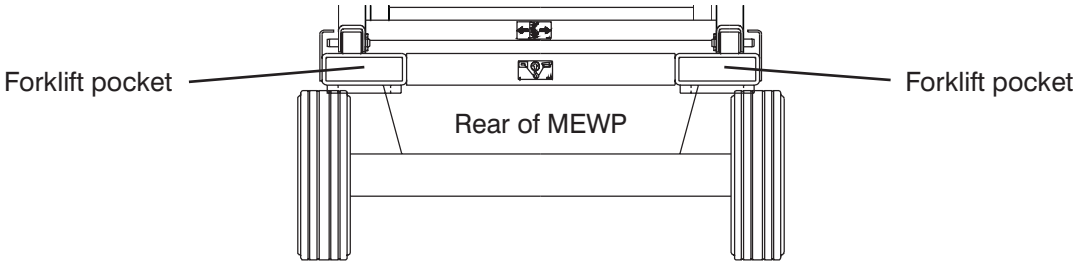


Figure 3-28. Forklift Pockets

3.11 Moving the MEWP Through a Doorway

WARNING

This procedure is suitable for level ground only.

1. Confirm that the height/width of the doorway is sufficient to allow the MEWP to pass through.

NOTE

If it is necessary to fold the guardrails, refer to Section 3.9 for guardrail folding procedure.

2. Perform a thorough job site inspection prior to operating the MEWP to identify potential hazards in your work area.

3. Cordon-off the pathway which you intend to travel.

4. Position the MEWP to allow all future motion, including through the doorway, to be in a forward direction.

5. Turn main power disconnect switch to "◯" off position.

6. Use the ladder of MEWP to access platform.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

7. Close the gate. On platform control console, push in "" emergency stop button.

8. Disconnect and remove platform control console from the platform.

9. Fold the guardrails if necessary. Refer to Section 3.9 for guardrail folding procedure.

10. Use the ladder to dismount from platform.

11. Connect platform control console to the connection at the rear of the base.

NOTE

For some models, the connection is located beneath an access panel which requires that the scissor assembly be raised to access it.

12. Ensure there are no personnel in the intended path of travel.

13. Notify those around the pathway that you will be moving the MEWP.

14. Use a spotter to guide movement. Ensure the spotter remains at a safe distance.

15. Ensure that platform control console is properly oriented in the direction the MEWP is facing.

16. Turn main power disconnect switch to "|"on position.

17. On base control console, pull out "" emergency stop button.

18. Select base/off/platform key switch to "" platform position.

19. On platform control console, pull out "" emergency stop button.

20. Select lift/off/drive switch to "" drive position.

Select inclined drive/level drive switch to "" inclined drive (low speed/high torque) position for reduced speed.

WARNING

Do not drive the MEWP toward yourself.

21. Using as low a speed as practical and the operator positioned behind the MEWP, drive forward through doorway.

22. Once safely through doorway, push in "" emergency stop button and turn main power disconnect switch to "◯" off position.

23. Disconnect platform control console and return it to the platform.

WARNING

Ensure that you maintain three points of contact when using the ladder to mount/ dismount platform.

24. Return guardrails to upright position if folded. Refer to Section 3.9 for guardrail folding procedure.

WARNING

Before operating this MEWP check the guardrail system for loose or missing locking pins. The guardrail system must be upright and all pins must be locked in place.
Death or serious injury could result if the guardrail system is not upright or properly locked.

25. Once the platform control console is securely reconnected and guardrails up, normal operation may continue.

3.12 Maintenance Supports Procedure

This section provides the operator with procedure regarding deployment and storage of maintenance supports.

The maintenance supports are a safety mechanism designed to support the scissor assembly. When properly positioned they can support the scissor assembly and empty platform. The maintenance supports must be used when inspection and/or maintenance is to be performed within the lifting mechanism.

WARNING

The maintenance supports must be used when inspection and/or maintenance or repairs are to be performed within the lifting mechanism. Failure to use this safety mechanism could result in death or serious injury.

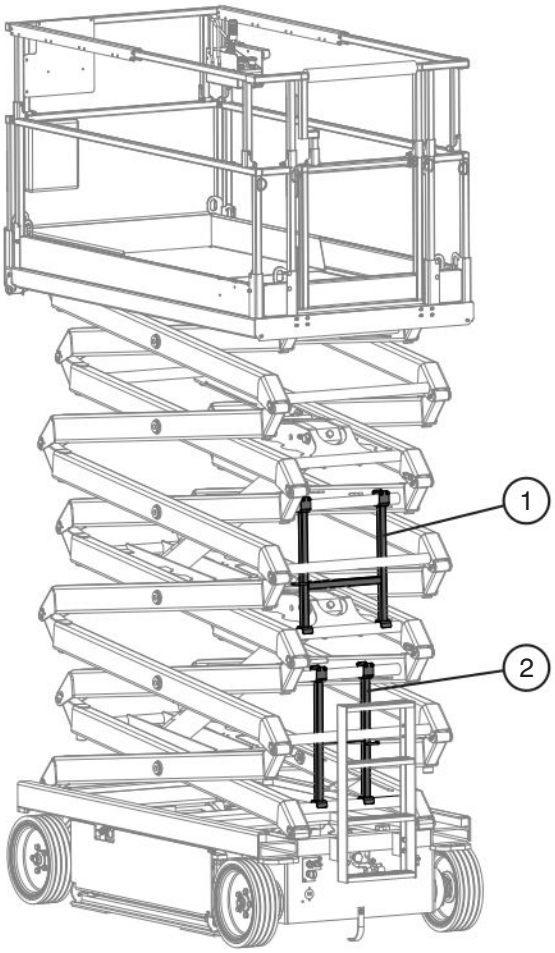


Figure 3-29. Maintenance Supports

To Deploy the Maintenance Supports

1. Remove all material from platform.
2. Raise platform until there is adequate clearance to swing down upper maintenance support (item 1).
3. Swing upper maintenance support down from storage bracket into a vertical position.
4. Swing lower maintenance support down from storage bracket into a vertical position (item 2).
5. Remove hands and arms from scissors area.
6. Lower platform until bottom ends of maintenance supports contact the labeled cross bar and scissors are supported by both maintenance supports.
7. Turn main power disconnect switch to "◯" off position.

To Store the Maintenance Supports

1. Turn main power disconnect switch to "|"on position.
2. Raise platform until there is adequate clearance to swing up the upper and lower maintenance supports.
3. Swing the upper bar fully up into storage bracket.
4. Swing the lower bar fully up into storage bracket.
5. Lower the platform.

WARNING

Do not reach through the scissor assembly when the platform is raised without the maintenance supports properly positioned. Failure to avoid this hazard could result in death or serious injury.

3.13a Battery Maintenance

This section provides the operator with procedures on how to service and charge the battery. This also provides charger operation instructions.

3.13a-1 Battery Service Procedure

WARNING

Explosion Hazard - Keep flames and sparks away. Do not smoke near batteries.



WARNING

Battery acid is extremely corrosive - Wear proper eye and facial protection as well as appropriate protective clothing. If contact occurs, immediately flush with cold water and seek medical attention.

1. Turn main power disconnect switch to "◯" off position.
2. Check battery case for damage.
3. Check battery fluid level in each battery. If plates are not covered by at least 1/2" (13 mm) of solution, add distilled or demineralized water.
4. Clean battery terminals and cable ends thoroughly with a terminal cleaning tool or wire brush.
5. Make sure all battery connections are tight.
6. Replace any battery that is damaged or incapable of holding a lasting charge.
7. Do not use any batteries other than flooded lead-acid batteries of the proper AH rating.

WARNING

Use original or equivalent to the original parts and components for the MEWP.

3.13a-2 Battery Charging Operation

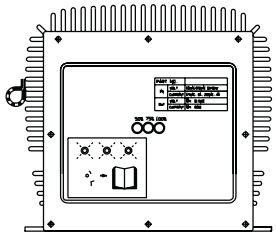


Figure 3-30. Battery Charger

DANGER

Risk of electric shock - Do not immerse the charger in water. Though the charger is highly resistant to water, it is not designed for immersion and an electric shock can occur.

1. Provide adequate ventilation for the batteries and charger. The convection cooled design requires access to cooling air for proper operation. Do not allow blankets or other materials to cover the charger. Although the charger protects itself against overheating, the charger cooling fins should be cleaned if clogged with debris for best performance.

WARNING

There could be a spark during charging. Be careful when using fuels, solvents or other flammables near the charger or batteries.

2. Connect the power supply cord to a properly grounded 100V/50 or 60Hz, 115V/50 or 60Hz, or 230V/50 or 60Hz socket. This charger automatically senses and adjusts to the AC input voltage range.

CAUTION

When changing the input voltage wait until all the LEDs are OFF or wait a minimum of 20 seconds before switching on the new voltage.

3. The charging time is affected by numerous factors including battery Amp-Hour capacity, depth of discharge, battery temperature, and battery condition (new, old or defective). Batteries larger than 240 AH can be recharged but will take longer.

WARNING

Do not disconnect the DC output wires near the batteries when the charger is ON. The resulting arcing could cause the batteries to explode. If the charger must be disconnected, first disconnect the AC power supply cord from its outlet, then disconnect the charger DC connections.

WARNING

Risk of an electric shock - Do not touch un-insulated parts of the charger output wires, battery connector, or battery terminals.

WARNING

Visually and manually inspect to verify the DC output wires and terminals are in good working condition before each use.

4. The charger will start automatically within four to six seconds. The charger will start even with severely discharged batteries (down to 1V terminal voltage). Once charging starts, the LEDs indicate the charging progress.

Charging State LED

State of charge	1ST LED	2ND LED	3RD LED
0 to 50%	Blinking	Off	Off
50% to 75%	On	Blinking	Off
75% to 100%	On	On	Blinking
100%	On	On	On

60133AA

The charger goes into an equalizing charge mode after the batteries are charged and all 3 LEDs are “ON”. The charger will continue to charge at a low current then shut off automatically when complete. If all 3 LEDs blink together, there is a problem.

Take proper action according to the following instructions:

3 LEDs blink once simultaneously:
Output connection error. Check the battery and charger connection. The output may not be connected to the batteries or the connections to the batteries may have corroded or loosened. The output may be shorted due to improper connection to the batteries or pinched wires. The output may be connected in reverse polarity to the batteries. The charger is not damaged by any of these problems.

3 LEDs blink twice simultaneously:
The charger is indicating that the AC voltage is too low or too high. Check the AC input voltage.

3 LEDs blink three times simultaneously:
Charger is overheated. No action required. When the charger cools, charging will restart automatically. Check and correct for dirt or other debris on charger that may be reducing cooling.

3 LEDs blink four times simultaneously:
Input or output over current. No action required, charger will correct and restart automatically.

100% LED lamp blinks:
Charger 18-hour timer has timed out due to battery problem.

Batteries do not fully charge.
If the batteries are charged overnight, make sure the AC supply is not being switched off at night with other building items. Check battery condition and for dead cells or reduced capacity. Replace charger only if other problems are not found.

The AC line circuit breaker or fuse is blown.
A defective circuit breaker or fuse, an overloaded circuit, or a charger problem can cause this condition. Try connecting the charger to a different AC outlet (on a different circuit) in the building. If the AC supply checks good, the charger should be replaced.

3.13b Battery Maintenance (If Equipped)

This section provides the operator with procedures on how to service and charge the battery. This also provides the charger operation instructions.

3.13b-1 Servicing the battery

⚠ WARNING



Explosion hazard. Keep flames and sparks away. Do not smoke near batteries. Battery acid releases explosive gas while charging. Charge batteries in a well-ventilated area.

⚠ WARNING

Battery acid is extremely corrosive – wear proper eye and facial protection as well as appropriate protective clothing. If contact occurs, immediately flush with cold water and seek medical attention.

1. Turn the main power disconnect switch to the off position.
2. Check the battery case for damage.
3. Check the battery fluid level in each battery. If the plates are not covered by at least 13 mm (1/2 in) of solution, add distilled or demineralized water.
4. Make sure all the battery connections are tight.

NOTE

Do not use any batteries other than the flooded lead-acid batteries of the proper Ah rating.

⚠ WARNING

Use the original or equivalent to the original parts and components for the MEWP.

3.13b-2 Charging the battery

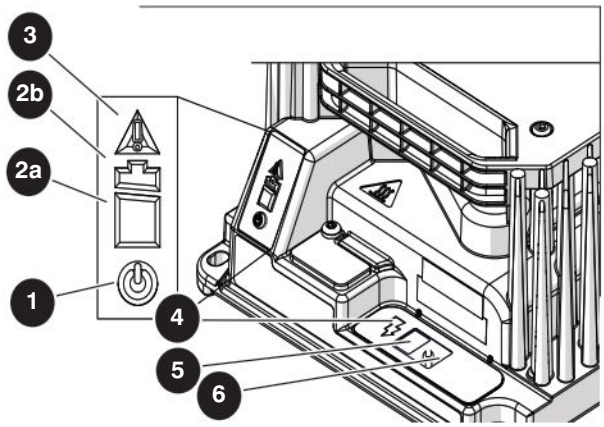


Figure 3-31. Battery Charger

No.	Indicator type	State	Description/action required
1	AC power	Blue	Battery charger is connected to the AC power.
2a	Battery charging <80%	Flashing green	Low charge— continue charging.
		Solid green	High charge— continue charging.
2b	Battery charging >80%	Flashing green	High charge— can discontinue charging.
		Solid green	Charge complete— discontinue charging.
3	Fault/ error	Solid red	Charger fault—refer to the service manual.
		Flashing amber	Error encountered—refer to the service manual.
4	Charging output	Solid yellow	Charger output is active.
5	Charge profile/ error display	Current algorithm or fault/ error code	N/A.
6	Select charge profile	Current charging algorithm	N/A.

⚠ WARNING

Risk of electric shock – do not immerse the charger in water. Though the charger is highly resistant to water, it is not designed for immersion, and an electric shock can occur.

⚠ CAUTION

Hot Surfaces - During charging, the surface of the charger may become hot to the touch, especially in higher ambient temperatures. This is normal. Avoid touching the surface of the charger.

1. Provide adequate ventilation for the batteries and charger.

NOTE

The convection cooled design requires access to cooling air for proper operation. Do not allow blankets or other materials to cover the charger. Although the charger protects itself against overheating, the charger cooling fins should be cleaned if clogged with debris for best performance.

⚠ WARNING

There could be a spark during charging. Be careful when using fuels, solvents or other flammables near the charger or batteries.

2. Connect the power supply cord to a properly grounded socket between 100 to 240 VAC, 50/60 Hz. The charger automatically senses and adjusts to the AC input voltage range.
3. The charging time is affected by numerous factors including the battery Amp-Hour capacity, depth of discharge, battery temperature, and battery condition (new, old, or defective). Batteries larger than 240 AH can be recharged but will take longer.

⚠ WARNING

Do not disconnect the DC output wires near the batteries when the charger is ON. The resulting arcing could cause the batteries to explode. If the charger must be disconnected, first disconnect the AC power supply cord from its outlet, then disconnect the charger DC connections.

⚠ WARNING

Risk of an electric shock – do not touch uninsulated parts of the charger output wires, battery connector, or battery terminals.

⚠ WARNING

Visually and manually inspect to verify the DC output wires and terminals are in good working condition before each use.

4. The charger will start automatically within four to six seconds. The charger will start even with severely discharged batteries (down to 1 V terminal voltage). Once the charging starts, the LEDs indicate the charging progress.

- **Batteries do not fully charge:** If the batteries are charged overnight, make sure the AC supply is not being switched off at night with other building items. Check the battery condition and for dead cells or reduced capacity. Replace the charger only if other problems are not found.
- **The AC line circuit breaker or fuse is blown:** A defective circuit breaker or fuse, an overloaded circuit, or a charger problem can cause this condition. Try connecting the charger to a different AC outlet (on a different circuit) in the building. If the AC supply is sufficient, the charger should be replaced.

Notes

Table 4.1 Standard and Optional Features

Models	4740
STANDARD EQUIPMENT	
Platform controls	*
Base controls	*
Drivable at full height	*
Positive traction	*
Dual holding brakes	*
Battery charge indicator	*
Battery level indicator	*
Low voltage battery protection	*
Color coded and numbered wiring system	*
Swing out trays for easy access	*
Proportional control for drive/lift with joystick control	*
Tilt alarm with drive/lift cut out	*
GFI AC outlet on platform	*
Fall Protection Anchorage	*
Forklift pockets/tie downs/lifting lugs	*
Hydraulic oil level and temperature indicators	*
Operator horn	*
Midrail chain entrance	*
Top railing with a midrail & 6” (15 cm) toeboard	*
Hourmeter	*
Hinged railing system	*
Variable front wheel hydraulic drive	*
Freewheeling valve	*
Pothole protection	*
4’ (1.2 m) Extension deck	*
Flashing Light	*
OPTIONAL EQUIPMENT	
Aluminum control box guard	*
Board carrier	*
Heavy duty pipe rack	*
All motion audible alarm	*
Dual Flashing Lights	*

410B

Table 4.2 Owner's Annual Inspection Record

	Model Number: _____ Serial Number:_____								
*	20__	20__	20__	20__	20__	20__	20__	20__	20__
**	SKYJACK								

1001AB

This decal is located on the scissor assembly. It must be completed after an annual inspection has been completed. Do not use the aerial platform if an inspection has not been recorded in the last 6 months.

	Pictorial	Description
*		**Inspection Date**
**		**Inspector Signature**

Table 4.3 Specifications and Features

MODEL	4740
Weight *	2970 kg
Overall width	1201 mm
Overall length	2404 mm
Platform Size (inside)	1060 mm x 2188 mm
Height	
Working Height	13.82 m
Platform Elevated Height	11.82 m
Stowed Platform Height (Railings Down)**	1371 mm
Stowed Platform Height (Railings Down)***	1986 mm
Stowed Platform Height (Railings Up)	2488 mm
Drive Height	11.82 m
Standard Operating Time	
Lift Time (No Load)	67 s
Lower Time (No Load)	54 s
Lift Time (Rated Load)	76 s
Lower Time (Rated Load)	46 s
Chassis	
Normal Drive Speed	3 km/h
Elevated Drive Speed	≤ 0.8 km/h
Gradeability	25%
Tires	16 x 5 x 12
	Solid Rubber
Hydraulic Oil	
Type	ATF
	Bio-Oil
Capacity	28 Liters
Emission sound pressure level at platform does not exceed 76 db(A).	
Vibration - acceleration to which operator's body is subjected does not exceed 0.5 m/sec².	

411C

* Weight with standard 1.2 m extension platform. Refer to serial nameplate for specific applications.

** Mid-rail height of: 0.68 m (measured from the platform floor to the top of the mid-rail)

*** Mid-rail height of: 0.53 m (measured from the platform floor to the top of the mid-rail)

Table 4.4 Floor Loading Pressure

MODEL		Total Aerial Platform Weight	Total Aerial Platform Load		
			Wheel	LCP**	OUP**
		kg	kg	kPa (kN/m^2)	kg/m^2
4740	min*	2970	1050	1270	1030
	max*	3320	1360	1446	1150

412A

* **min** - Total aerial platform weight with no options

max - Aerial platform weight + all options + full capacity

** **LCP - Locally Concentrated Pressure** is a measure of how hard the aerial platform presses on the areas in direct contact with the floor. The floor covering (tile, carpet, etc.) must be able to withstand more that the indicated values above.

OUP - Overall Uniform Pressure is a measure of the average load the aerial platform imparts on the whole surface directly underneath it. The structure of the operating surface (beams, etc.) must be able to withstand more than the indicated values above.

NOTE:

The **LCP** or **OUP** that an individual surface can withstand varies from structure to structure and is generally determined by the engineer or architect for that particular structure.

Floor Loading Pressure

Locally Concentrated Pressure (LCP):

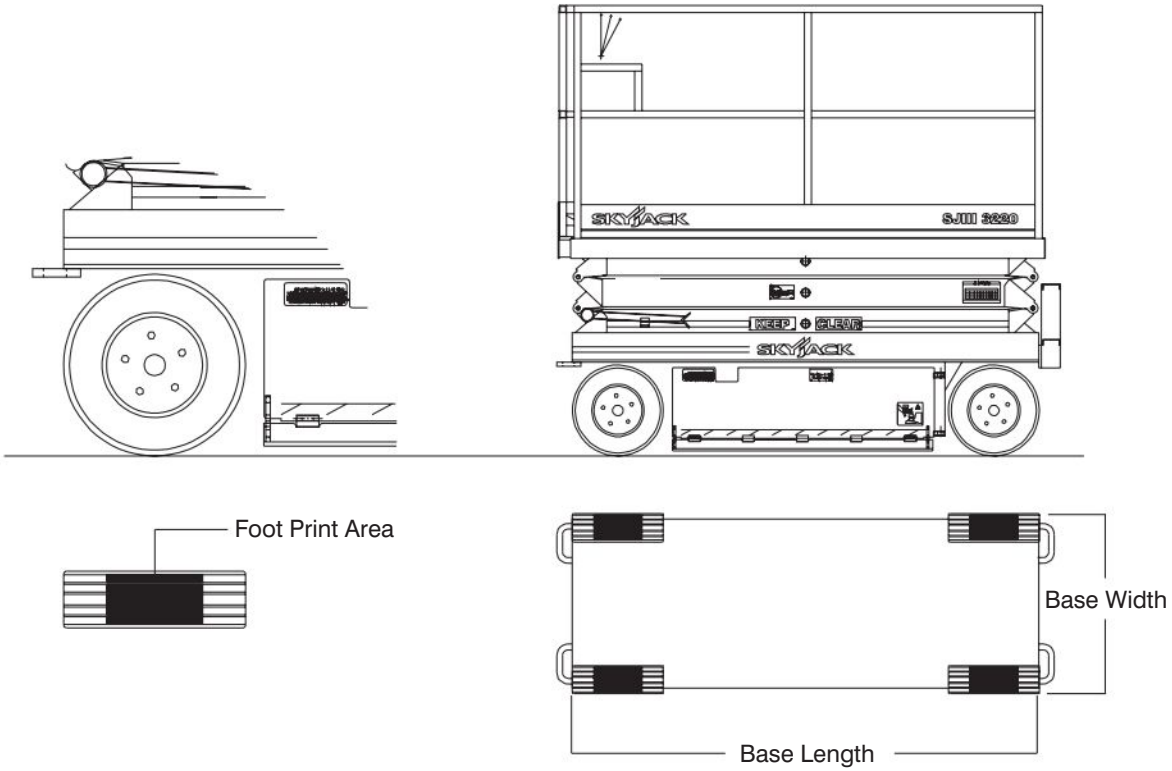
Foot Print Area identified by test.

$$LCP = \frac{\text{Wheel Load}}{\text{Foot Print Area}}$$

Overall Uniform Pressure (OUP):

Base Area = Length x Width

$$OUP = \frac{\text{Weight of MEWP + Capacity}}{\text{Base Area}}$$



WARNING

Intermixing tires of different types or using tires of types other than those originally supplied with this equipment can adversely affect stability. Therefore, replace tires only with the exact Skyjack-approved type. Failure to operate with matched approved tires in good condition may result in death or serious injury.

Table 4.5 Maximum Platform Capacities (Evenly Distributed)

MODEL	Total		Extension Platform		Maximum Wind Speed	Tilt Cutout Setting
	Capacity	Number of Persons	Capacity	Number of Persons		
4740	350 kg	3 Persons	120 kg	1 person	0 m/s	1.5° x 3°

413A

Table 4.6 EC Declaration of Conformity

EC Declaration of Conformity

We, SKYJACK Inc., [*], declare under our sole responsibility that the product Scissor Type Elevating Work Platform

Model number: [*] Serial number: [*]

To which this declaration relates is in conformity with the following directives:

Machinery Directive 2006/42/EC
Harmonized European Standard EN280: 2013 + A1
Notified body is: [*]

EC type Examination Certificate No: [*]

Directive 2014/30/EU
With guidance from Harmonized European Standard EN13309:2010
Testing Laboratory: [*]

The Technical Construction File is maintained at:
[*]

The authorized representative located within the community is:
[*]

Place of issue:
[*]

Note: In case of unauthorized modification, this Declaration becomes invalid.

Engineering Manager
Test & Validation

Quality Manager

[*] For information refer to the English Declaration of Conformity provided with your aerial platform.

General Maintenance

Before attempting any repair work, disconnect the battery by turning the main power disconnect switch to "◯" off position. Preventive maintenance is the easiest and least expensive type of maintenance.

Table 4.7 Maintenance and Inspection Schedule

Frequency	Daily	3 months or 150 hours	Yearly
Visual and Daily Maintenance Inspections			
Labels	A	B*†	
Electrical	A		
Limit Switches	A		
Hydraulic	A		
Entrance Side			
Main Power Disconnect Switch	A		
Base Control Switches	A		
Free-wheeling Value Knob	A		
Brakes	A		
110V/220V Outlet Receptacle	A		
Ladder	A		
Battery Tray Side			
Pothole Protection Device	A		
Battery Tray	A		
Battery Charger	A		
Battery	A		
Steer Cylinder Assembly	A		
Wheel/Tire Assembly	A		
Tie Rod (Conventionals)	A		
Greasing Points	A		
Hydraulic/Electric Tray Side			
Pothole Protection Device	A		
Hydraulic Tank	A		
Hydraulic Oil	A		
Hydraulic Pump and Motor	A		
Electrical Panel	A		
Proportional and Main Manifolds	A		
Load/Tilt Sensor	A		
Emergency Lowering Access System	A		
Platform Assembly			
Fall Protection Anchorages	A		
AC Outlet on Platform	A	B*†	
Platform Control Console	A		
Manuals	A		
Powered Extension Control Console (If Equipped)	A		
Lifting Mechanism			
Maintenance Supports	A		
Scissor Assembly	A		
Scissor Bumpers	A		
Rollers	A		
Lift Cylinder(s)	A		
Function Tests			
Test Main Power Disconnect Switch	A	B*†	
Base Control Console			
Test Base Emergency Stop	A		
Test Off/Platform/Base Switch	A		
Test Lower/Neutral/Raise Switch	A		
Test Emergency Lowering	A		
Test Free-wheeling	A		
Platform Control Console			
Test Platform Emergency Stop	A		
Test Enable Trigger Switch	A		
Test Steering	A		
Test Driving	A		
Test Brakes	A		
Test Platform Raising/Lowering	A		
Test Lowering Warning (If Equipped)	A		
Test Horn	A		
Test Load Sensing (If Equipped)	A		
Test Pothole Sensor	A		
Test Elevated Drive Speed	A		

404A

A - Perform Visual and Daily Maintenance Inspections & Functions Test. Refer to Section 2.3 and Section 2.4 of this manual.
B - Perform Scheduled Maintenance Inspection. Refer to Service & Maintenance manual.
***** - Maintenance must be performed only by trained and competent personnel who are familiar with mechanical procedures.
† - Refer to Skyjack's website @ www.skyjack.com for latest service bulletins prior to performing quarterly or yearly inspection.

WARNING

Use original or equivalent to the original parts and components for the MEWP.

Table 4.8 Operator's Checklist

SKYJACK

OPERATOR'S CHECKLIST

Serial Number: _____

Model: _____

Hourmeter Reading: _____ Operator's Name (Printed): _____

Date: _____

Time: _____ Operator's Signature: _____

Each item shall be inspected using the appropriate section of the Skyjack operating manual.
As each item is inspected, check the appropriate box.

P - PASS
F - FAIL
R - REPAIRED
NA - NOT APPLICABLE

INSPECTION FREQUENCY
- ❑ FREQUENTLY
- ❑ DAILY
- ❑ ANNUALLY
- ❑ BI-ANNUALLY

	N/A	P	F	R
Visual and Daily Maintenance Inspections				
Labels				
Electrical				
Limit Switches				
Hydraulic				
Entrance Side				
Main Power Disconnect Switch				
Base Control Switches				
Free-wheeling Valve Knob				
Brakes				
220V Outlet Receptacle				
Ladder				
Battery Tray Side				
Pothole Protection Device				
Battery Tray				
Battery Charger				
Battery				
Steer Cylinder Assembly				
Wheel/Tire Assembly				
Tie Rod				
Greasing Points				
Hydraulic/Electric Side				
Pothole Protection Device				
Hydraulic Tank				
Hydraulic Oil				
Hydraulic Pump and Motor				
Electrical Panel				
Main Manifold				
Load/Tilt Sensor				
Emergency Lowering System				
Platform Assembly				
Fall Protection Anchorage (s)				

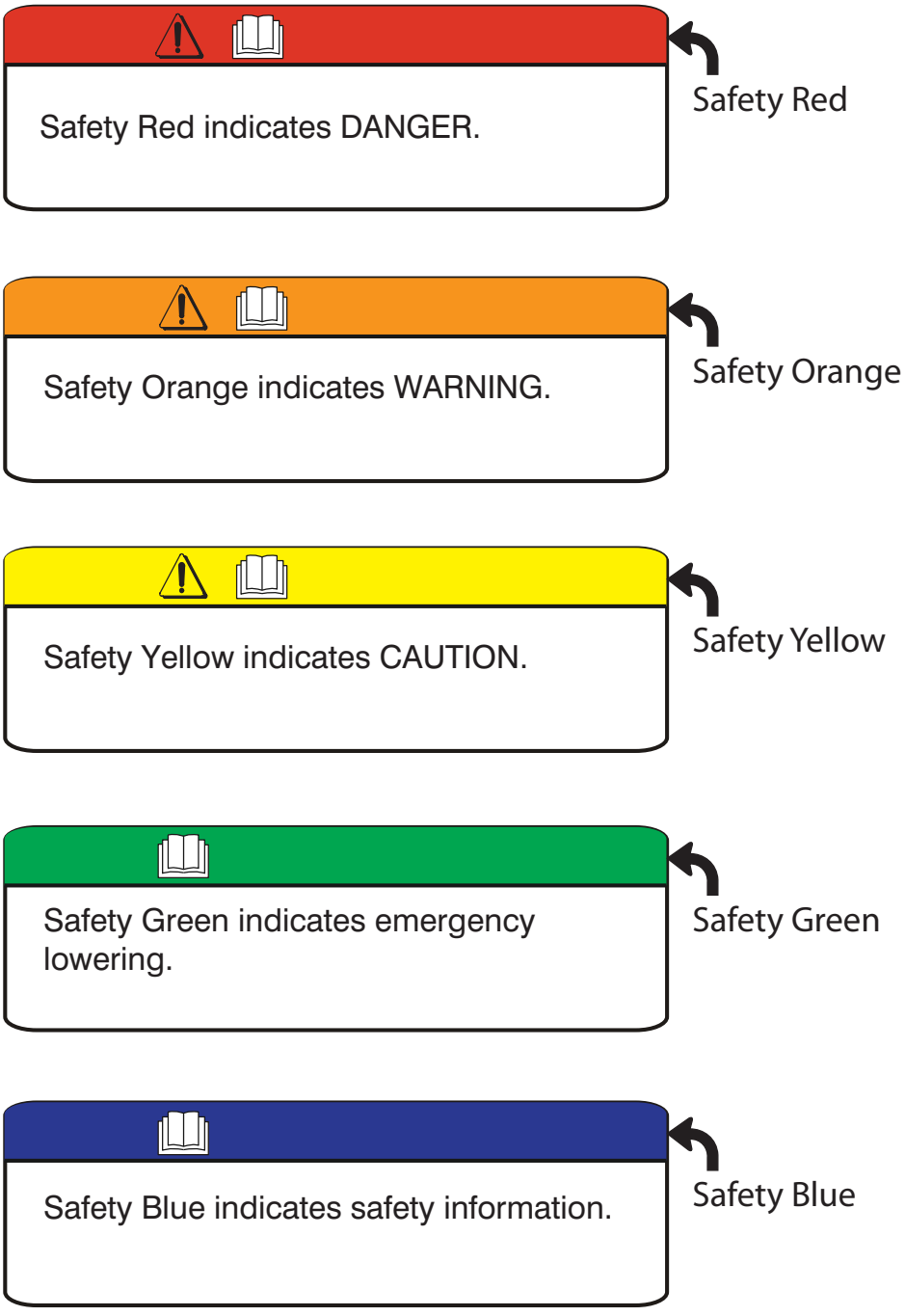
	N/A	P	F	R
AC Outlet on Platform				
Platform Control Console				
Manuals				
Powered Extension Control Console (If Equipped)				
Lifting Mechanism				
Maintenance Supports				
Scissor Assembly				
Scissor Bumpers				
Rollers				
Lift Cylinder(s)				
Function Tests				
Test Main Power Disconnect Switch				
Base Control Console				
Test Base Emergency Stop				
Test Off/Platform/Base Switch				
Test Lower/Neutral/Raise Switch				
Test Emergency Lowering				
Test Free-wheeling				
Platform Control Console				
Test Platform Emergency Stop				
Test Enable Trigger Switch				
Test Steering				
Test Driving				
Test Brakes				
Test Platform Raising/Lowering				
Test Lowering Warning				
Test Horn				
Test Pothole Sensor				
Test Elevated Drive Speed				
Test Load Sensing System				

405A

Note:
Make a copy of this page or visit the Skyjack web site:
www.skyjack.com for a printable copy.

Notes

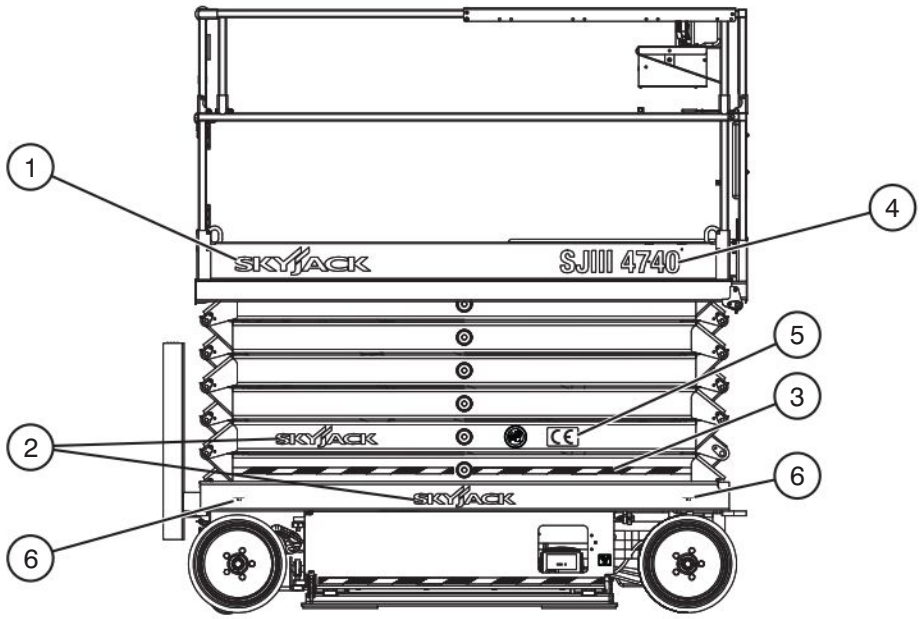
Label Legend



5

Labels and Nameplates - Model SJIII 4740

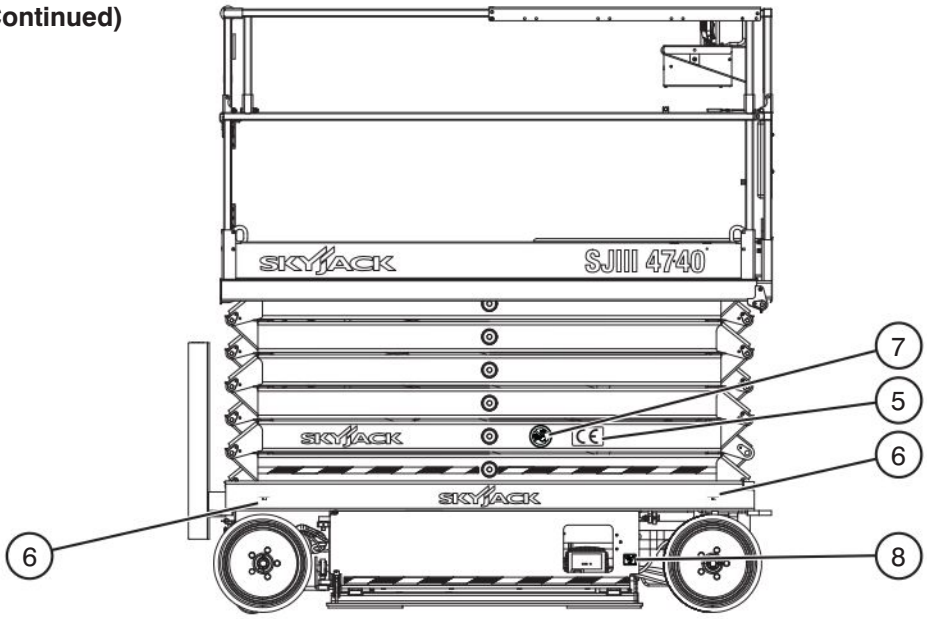
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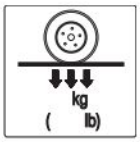


No.	Label Pictorial	Description
1	SKYJACK	**Skyjack Logo** Skyjack logo - 20” White
2	SKYJACK	**Skyjack Logo** Skyjack logo - 17” White
3		**Caution Tape Stripe** Caution stripe
4	SJIII 4740	**Model Number** Product Identifier

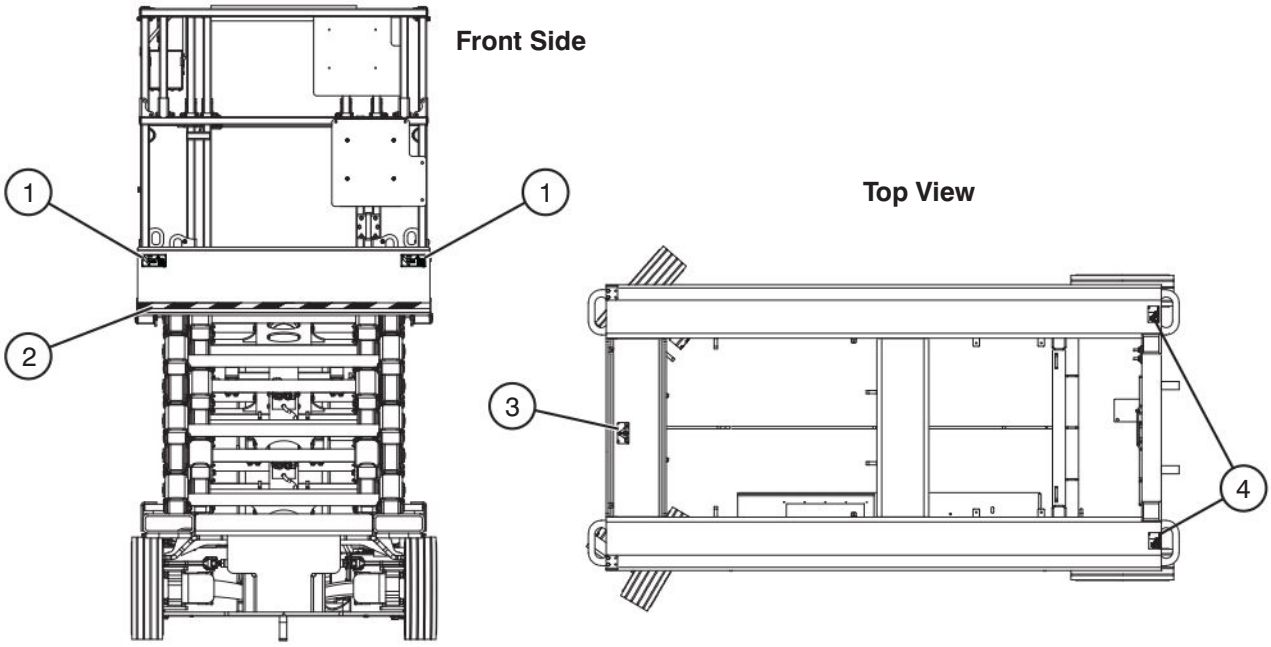
Labels and Nameplates - Model SJIII 4740

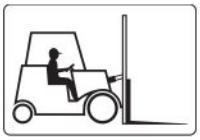
Right Side (Continued)



No.	Label Pictorial	Description
5		**“CE”** CE rating mark
6		**Wheel Load** Indicates rated wheel load.
7		**Keep Clear** Keep clear. Stay away from MEWP when in operation.
8		**Crushing Hazard** Danger - Crushing hazard

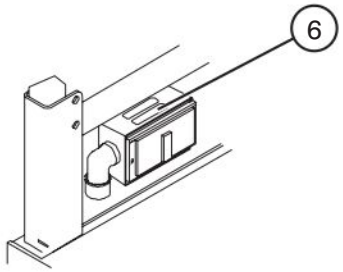
Labels and Nameplates - Model SJIII 4740



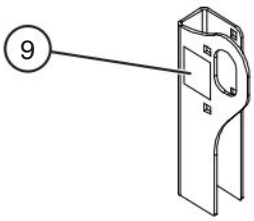
No.	Label Pictorial	Description
1		**Crushing Hazard** Danger - Crushing hazard
2		**Caution Tape Stripe** Caution stripe
3		**Lift and Tie Down Points** Only use these points for lifting or tying down.
4		**Forklift Pocket** Insert fork fully into pocket to lift MEWP.

Labels and Nameplates - Model SJIII 4740

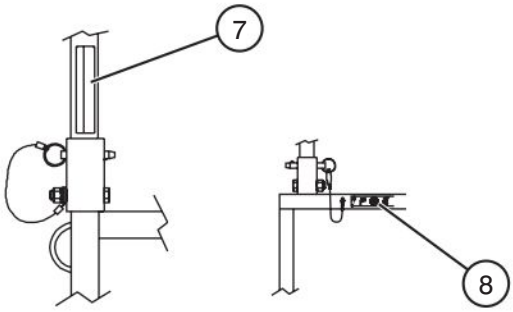
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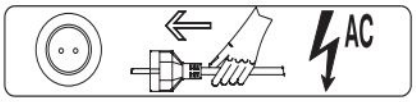
Outlet Box



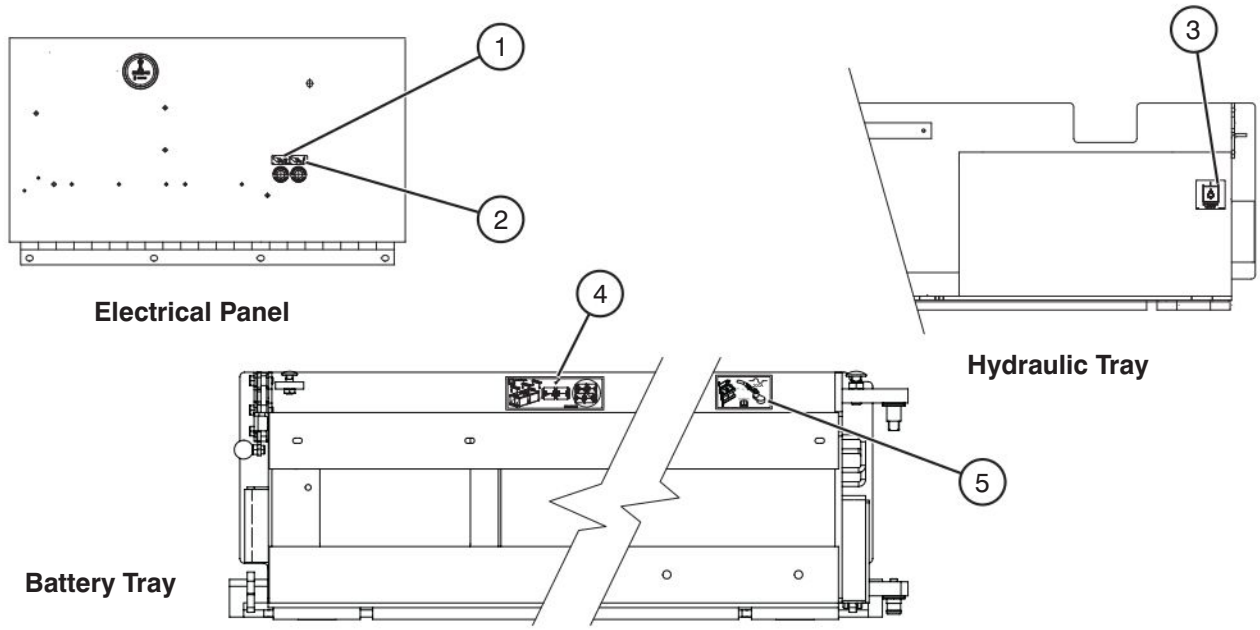
Fall Protection Anchorage

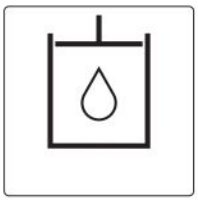
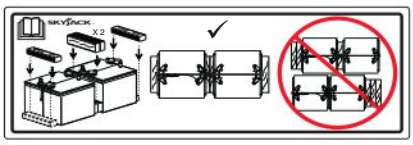
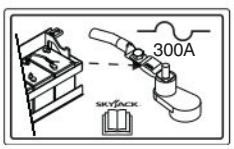


Railing Pins

No.	Label Pictorial	Description
6		**Connect Platform AC Supply** Connect AC power supply here for platform accessory outlet.
7		**Falling Hazard - Railing Pins (Vertical) (If Equipped)** WARNING! Falling Hazard. Make sure hinged railing is pinned properly.
8		**Falling Hazard - Railing Pins (Horizontal) (If Equipped)** WARNING! Falling Hazard. Make sure hinged railing is pinned properly.
9		**Fall Protection Anchorage** Rated for one (1) person per anchorage.

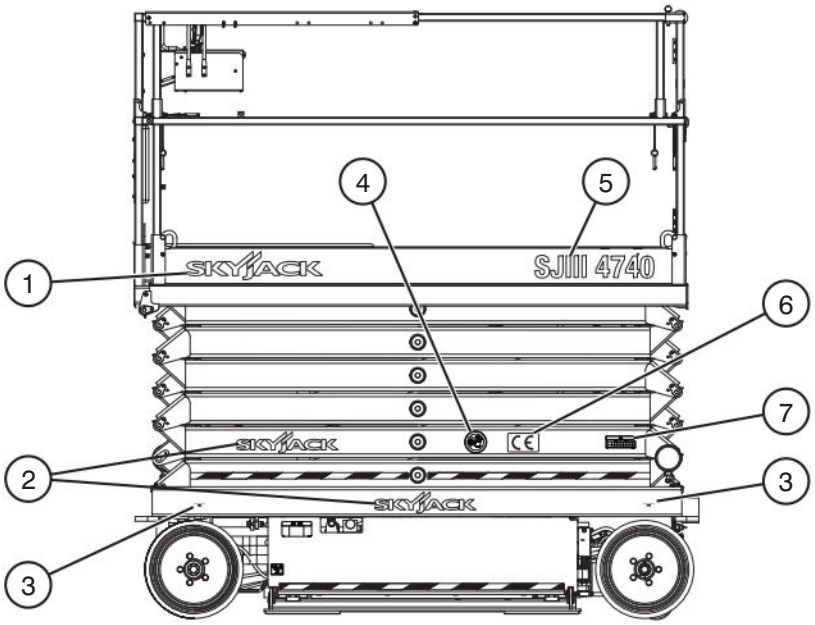
Labels and Nameplates - Model SJIII 4740



No.	Label Pictorial	Description
1		**Ground Circuit Breaker** Push to reset ground circuit breaker.
2		**Power Circuit Breaker** Push to reset power circuit breaker.
3		**Hydraulic Oil ATF Dexron III*** Replace hydraulic fluid with ATF Dexron III only. * Replace hydraulic fluid with Bio-Oil (if equipped).
4		**Battery Spacers** Place spacers only as shown in diagram.
5		**Fuse Location** Fuse location

Labels and Nameplates - Model SJIII 4740

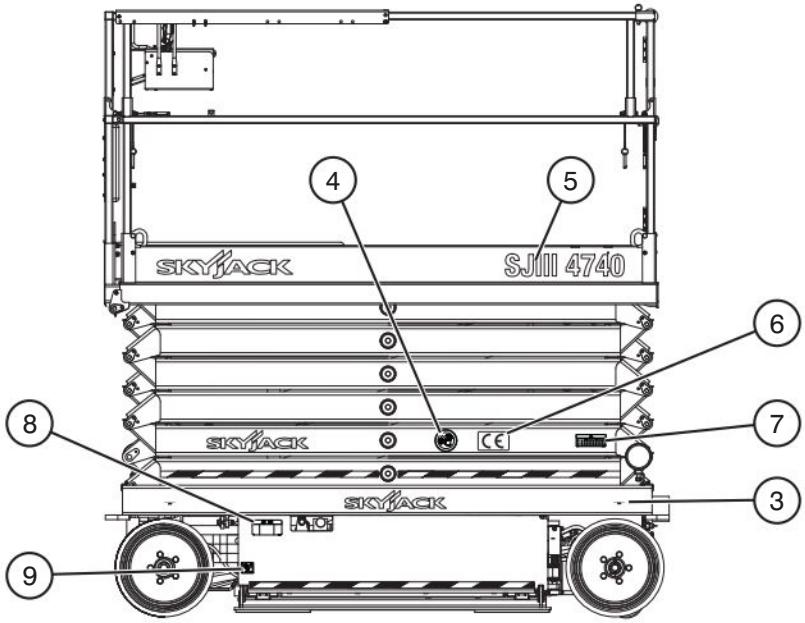
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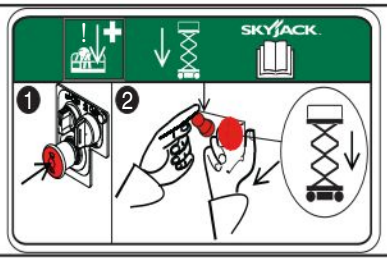


No.	Label Pictorial	Description
1	SKYJACK	**Skyjack Logo** Skyjack logo - 20” White
2	SKYJACK	**Skyjack Logo** Skyjack logo - 17” White
3	kg (lb)	**Wheel Load** Indicates rated wheel load.
4		**Keep Clear** Keep clear. Stay away from MEWP when in operation.
5	SJIII 4740	**Model Number** Product Identifier

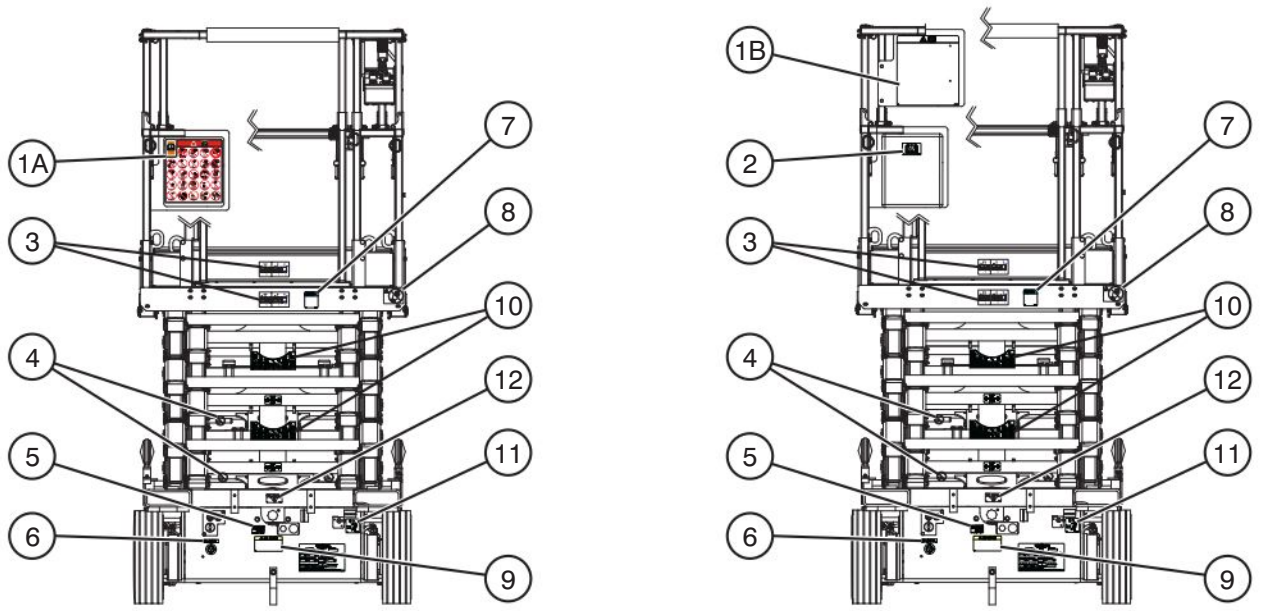
Labels and Nameplates - Model SJIII 4740

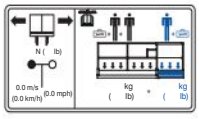
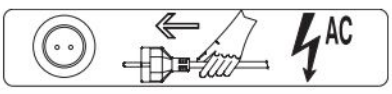
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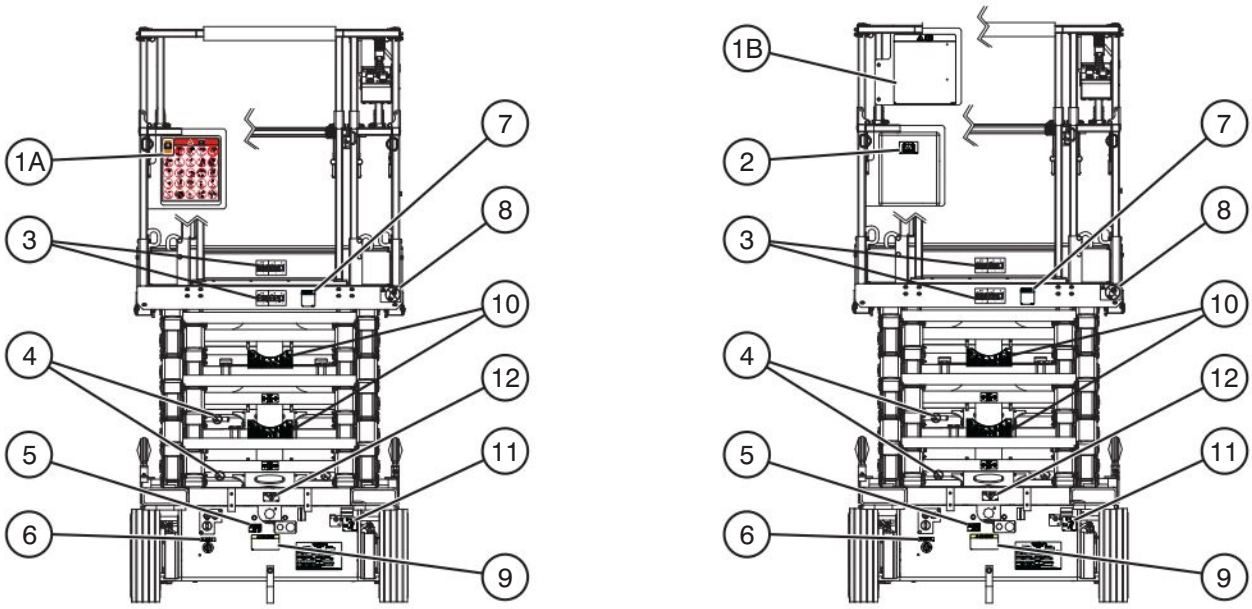
No.	Label Pictorial	Description
6		**"CE"** CE rating mark
7		**Annual Inspection** Ensure that work platform has received annual inspection prior to operation.
8		**Emergency Lowering Procedure** Refer to Operating manual. 1. Push in "" emergency stop button. 2. In hydraulic compartment, depress and hold Emergency Lowering Switch to activate the auxiliary lowering valves. Pull out and hold the emergency lowering valve to lower platform.
9		**Crushing Hazard** Danger - Crushing hazard

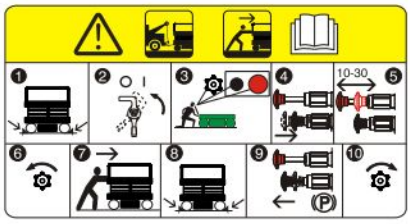
Labels and Nameplates - Model SJIII 4740



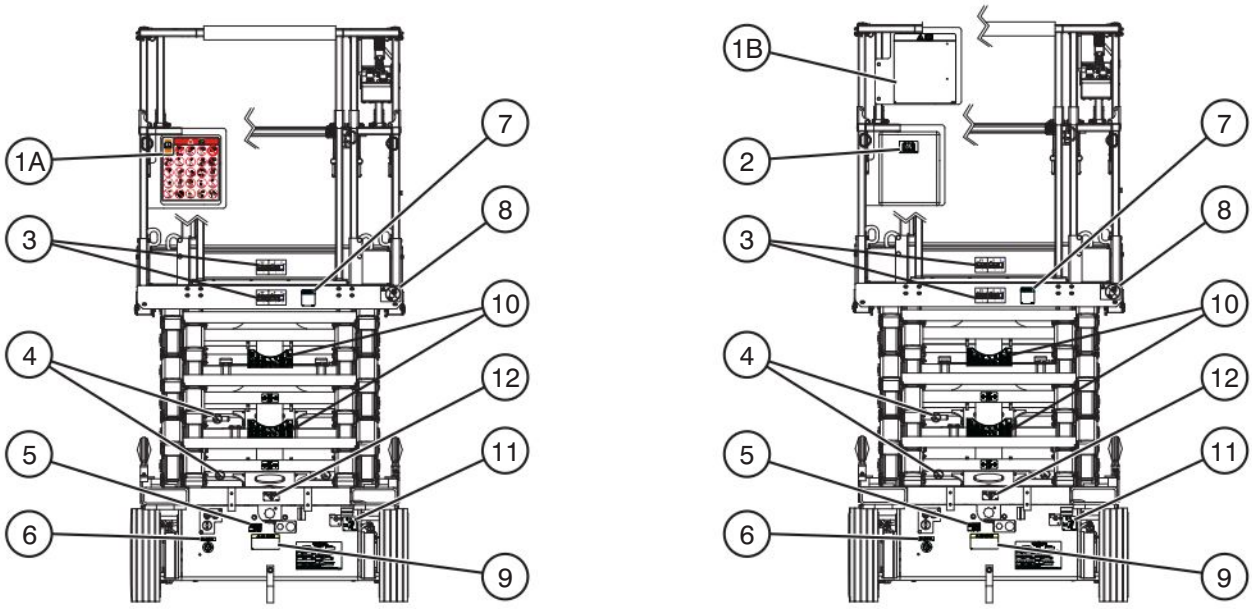
No.	Label Pictorial	Description
1A		**Hazard Identification and Manual Storage Box** Refer to Section 1: Safety Rules. Read and understand the outlined risks associated with this MEWP prior to operation. Indicates location of operating manual.
1B		**Hazard Identification** Refer to Section 1: Safety Rules. Read and understand the outlined risks associated with this MEWP prior to operation.
2		**Manual Storage Box** Indicates location of operating manual.
3		**Horizontal Load Rating & Platform Capacity** Operate with rated work load in each configuration below indicated wind speed only.
4		**Warning - Do Not Alter** DO NOT alter or disable limit switches or other safety devices.
5		**Refer to the Operating manual for Free-wheeling Procedure.** Open free-wheeling valve by turning counterclockwise. Close free-wheeling valve by turning clockwise.
6		**Connect Platform AC Supply** Connect AC power supply here for platform accessory outlet.

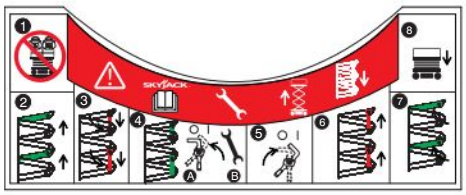
Labels and Nameplates - Model SJIII 4740



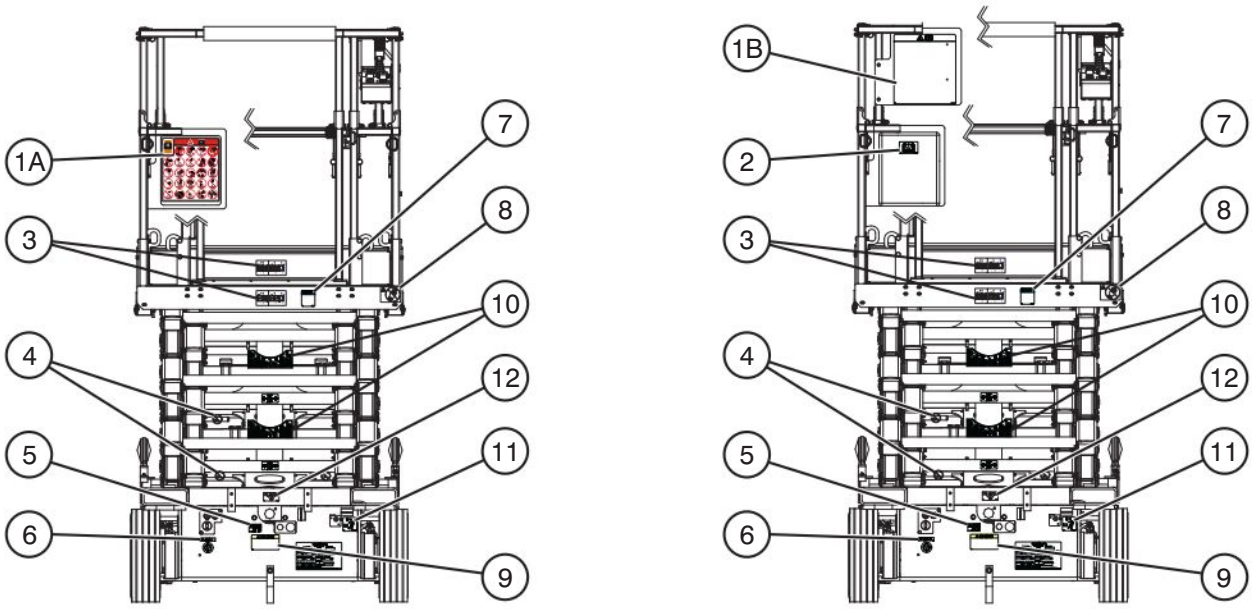
No.	Label Pictorial	Description
7		**Operator's Daily Inspection** Refer to the Operating manual. Perform visual inspection and function tests at the beginning of each shift. Refer to Section 4: Maintenance and Inspection Schedule.
8		**No Jewelry** Caution - Do not wear jewelry.
9		**Winching/Towing/Pushing Procedure** 1. Chock or block wheels. 2. Turn main power disconnect switch to off position. 3. Locate the free-wheeling valve and the brake manifold at the rear of the base. 4. Push in brake auto reset valve plunger. 5. Grasp brake hand pump and rapidly depress until firm resistance is felt. The brakes are now released. 6. Open the free-wheeling valve. 7. Remove wheel chocks or blocks, then push, winch or tow MEWP to desired location. 8. Position MEWP on a firm and level surface and chock or block wheels to prevent MEWP from rolling. 9. Reengage the brake by pulling out the brake auto reset valve plunger. 10. Close the free-wheeling valve.

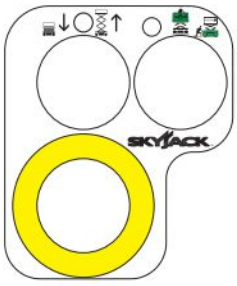
Labels and Nameplates - Model SJIII 4740



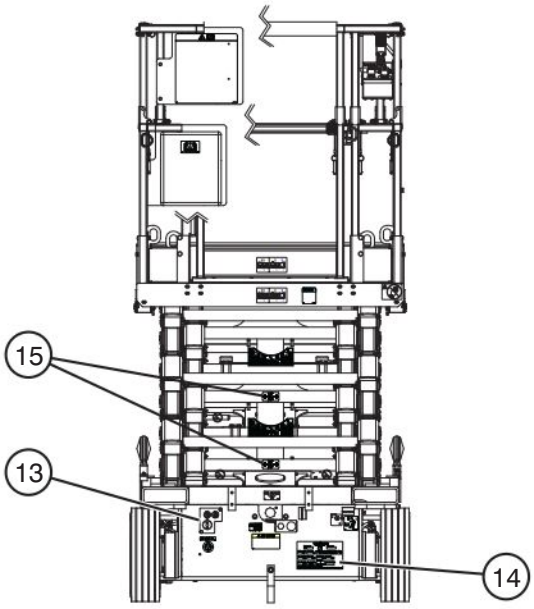
No.	Label Pictorial	Description
10		**How to engage maintenance supports for inspection or maintenance.** Refer to Operating manual. 1. Remove all material from platform. 2. Raise platform until there is adequate clearance to swing down maintenance supports. 3. Swing upper and lower maintenance supports down from storage bracket into a vertical position. Lower platform until bottom ends of maintenance supports contact the labeled cross bar and scissors are supported by both maintenance supports. 4. Maintenance supports are now secured. (A) Turn main power disconnect switch to off position. (B) Perform inspection/maintenance. 5. Turn main power disconnect switch to on position. 6. Raise platform until there is adequate clearance to swing up maintenance supports. 7. Swing maintenance supports up and place into storage bracket. 8. Ensure platform is fully lowered.

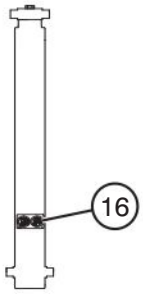
Labels and Nameplates - Model SJIII 4740



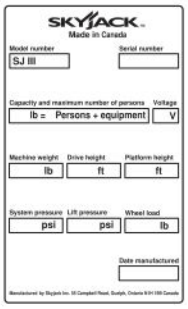
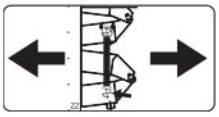
No.	Label Pictorial	Description
11		**Main Power Disconnect** Rotate clockwise to turn on main power, rotate counterclockwise to turn off main power, insert padlock to lock in position.
12		**Lift and Tie Down Points** Only use these points for lifting or tying down.
13		**Base Controls** Select "↓" to lower or "↑" raise platform. Select " " platform to enable platform controls, "◯" off to disable controls or " " base to enable base control console. Push " " to disable controls.

Labels and Nameplates - Model SJIII 4740



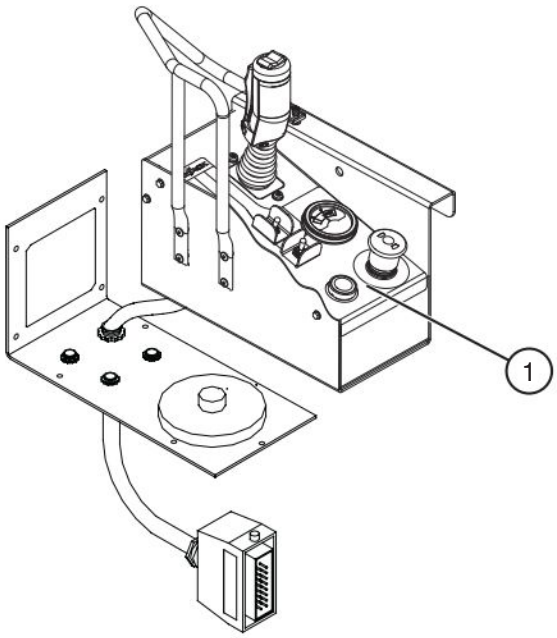


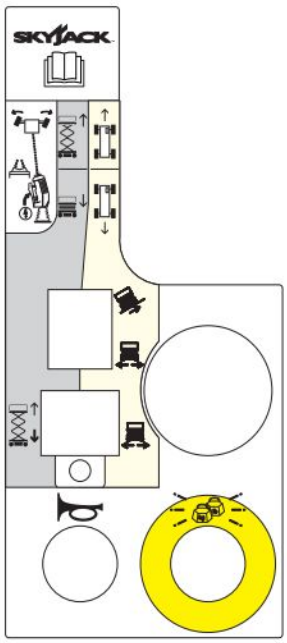
Cylinder

No.	Label Pictorial	Description
14		**Serial Plate*** Product identification and specifications *Serial plates will vary, may not be as shown.
15		**Maintenance Support** Deploy maintenance support here.
16		**Orifice Installed** Orifice installation warning

Labels and Nameplates - Model SJIII 4740

Platform Control Console



No.	Label Pictorial	Description
1		**Platform Control Console** Squeeze "" trigger to enable controller. Operate "" rocker switch to steer. Move controller handle forward to "" raise or backward to "" lower platform. Move controller handle "" forward to drive forward or "" backward to drive reverse. Select "" inclined drive (low speed/high torque) or "" level drive (high speed/low torque) mode. Select "" lift, "" off or "" drive mode. Select "" to sound horn. Push "" to disable controls. The operation light illuminates to indicate upper control availability and overload status. When light is "" flashing, it signals an overload function. Read "" operating manual.



www.skyjack.com