

OPERATING MANUAL (CE)

ARTICULATING BOOMS

MODEL SJ30ARJE

196404AFA
April 2019

SKYJACK

This manual is based on Serial Number(s):

SJ30ARJE 90 000 001 & 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!

Be 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.

Mobile Elevating Work Platform (MEWP) Definition

A mobile device that has an adjustable position platform supported from ground level by a structure.

Purpose of Equipment

The SKYJACK Electric Articulating Boom Series (Model SJ30ARJE) MEWP is 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. It can be driven over uneven terrain only when the platform is fully lowered.

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 electric articulating boom series work platform to be free of defective parts and workmanship for the first 24 months. Any defective part will be replaced or repaired by your local SKYJACK dealer at no charge for parts or labor. 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 non-standard components or systems, contact the SKYJACK Service Department at

☎ : +44-1691-676-235

🖷 : +44-1691-676-238

Include the model and serial number for each applicable MEWP.

Scope of this Manual

a. This manual applies to the CE version of the Electric Articulating Boom MEWP models listed in Table 4.1.

- Equipment identified with “CE” meets the requirements of the Machinery Directive 2006/42/EC and the EMC Directive 2014/30/EU.

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!

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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.
- **DISCONNECT** and lock out main power connector on either the left or right side of the MEWP when leaving the MEWP unattended to prevent unauthorized use.
- **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 MEWP .



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



- **AVOID** falling. Stay within the boundaries of the guardrails. Maintain firm footing on the platform floor at all times while working thereon.



- **ENSURE** all occupants wear personal fall protection equipment.
- **DO NOT** raise the MEWP or operate elevated in windy or gusty conditions that exceed the limits specified in Section 4, 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 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 and surfaces that may affect the stability of the MEWP.



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



- **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** drive elevated on a soft or uneven surface.



- **DO NOT** ascend or descend a grade steeper than 35%. Boom elevated driving must only be done on firm, level surfaces.



Safety Precautions (Continued)

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

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



- **DO NOT** exert horizontal (manual) force on MEWP that exceeds the limits specified in Table 4.5.



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



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



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



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



- **DO NOT** lower the platform unless the area below is clear of personnel and obstructions.
- **DO NOT** use boom to push, pull other objects or to lift the chassis.



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



- **STUNT** driving and horseplay are prohibited.
- **ENSURE ALL** tires are in good condition and lug nuts are properly tightened.
- **DO NOT** use with improperly inflated/damaged tires or wheels. Refer to Section 2: Wheel/Tire Assembly.



- **DO NOT** alter or disable limit switches or other safety devices.
- **DO NOT** use the MEWP without guardrails, locking pins and the entry gate in place.

Safety Precautions (Continued)

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

- **DO NOT** exceed the rated capacity of the MEWP.



- **DO NOT** distribute load unevenly.



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



- **DO NOT** attempt to free a snagged platform with lower controls until personnel are removed from the platform.

- **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.
- **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.



Safety Precautions (Continued)

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

Fall Protection

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.

WARNING

Failure to wear personal fall protection equipment may result in death or serious injury.

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 of the MEWP.

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.

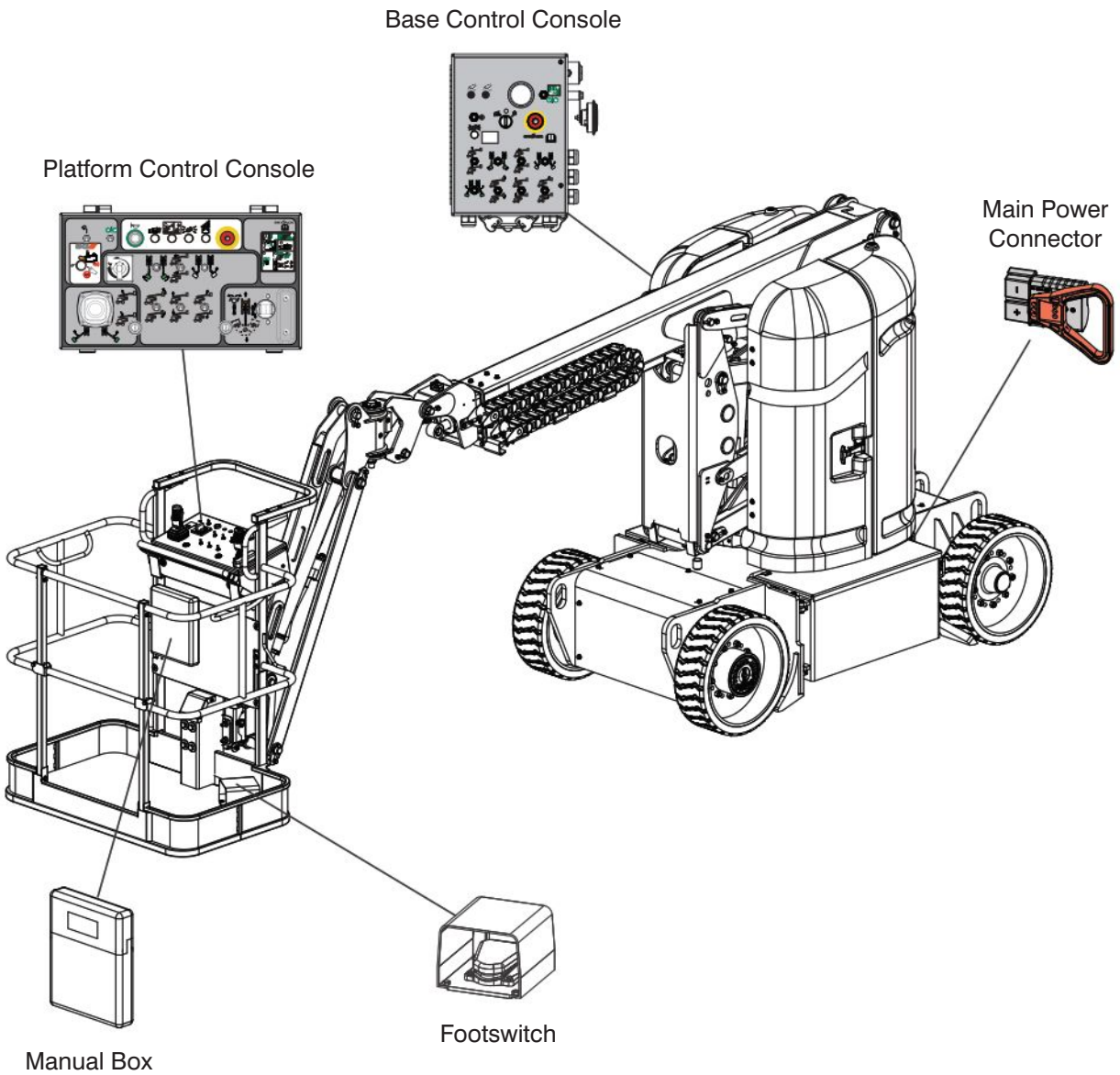
2.1 Familiarization of Electric Articulating Boom Series

WARNING

MEWP Familiarization should be given only to individuals who are QUALIFIED/ COMPETENT 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.



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 Component Identification

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

2.2-1 Main Power Connectors

The two connectors are located on both the left and right sides of the MEWP.

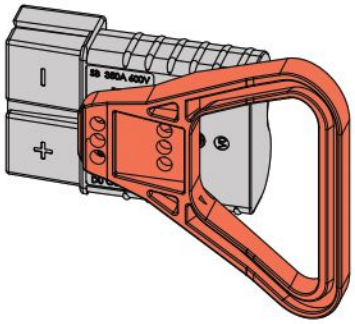


Figure 2-1. Main Power Connector

1. **Main Power Connector** - This connector, when disconnected and locked out, disconnects power to all circuits. Connector must be plugged in to base to operate any circuit. Disconnect and lock out when transporting MEWP.

2.2-2 Tilt Sensor

The tilt sensor is located inside the chassis, near the motor controller and motors. When the MEWP is on a slope greater than a predetermined limit and the boom positional limits are reached, an audible alarm sounds, a visual indicator illuminates, and boom movement or drive functions are disabled (see NOTES below).

WARNING

When tilt settings are exceeded, causing the alarm to sound and the light to illuminate, the platform should be lowered and retracted immediately. Refer to Section 3.9 for instructions on how to recover from an inclined position.

NOTE

- If the MEWP becomes tilted while elevated, causing the alarm to sound and the light to illuminate, drive functions will be disabled.

- If the MEWP is tilted while in the lowered travel position, movement of the fly boom extend, riser up, or main boom into the elevated position will be stopped at the limits of the lowered travel position. The alarm will sound and the light will illuminate. Further fly boom extension, riser up, or main boom rising will be disabled.

- Resetting power to the controls (e.g. e-stop depressed then pulled out) when the MEWP is tilted and at the limits of the lowered travel position will cause the MEWP to be considered tilted while elevated.

2.2-3 Brake System

The brake system is integrated into the torque hub. The torque hub disengage is located at the rear of the base. The brakes must be manually disengaged before winching or towing. Refer to Section 2.5-1 for procedure on how to release brakes manually.

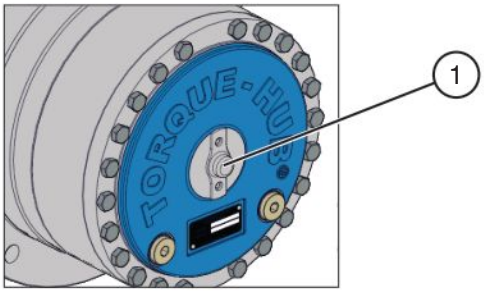


Figure 2-2. Torque-Hub Disengage

1. **Disengage Cap** - This device is used to manually disengage the brakes.

2.2-4 Footswitch

The footswitch is located on the floor of the platform. When depressed and held, it enables controls on the platform control console.

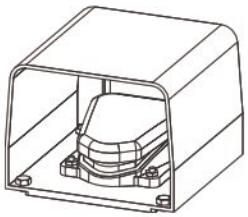


Figure 2-3. Footswitch

NOTE

The footswitch is equipped with a 7-second anti-tiedown feature that deactivates footswitch when operator depresses it for 7 seconds without activating any function.

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.

2.2-5 Manual Storage Box



This weather-resistant box is mounted under the control console on the platform. It contains the 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.

2.2-6 AC Outlet on Platform

This outlet is a source of AC power on the platform. The outlet is located on the right side of platform control console and the plug is located at the middle rear section of the turret.

2.2-7 Pothole Protection

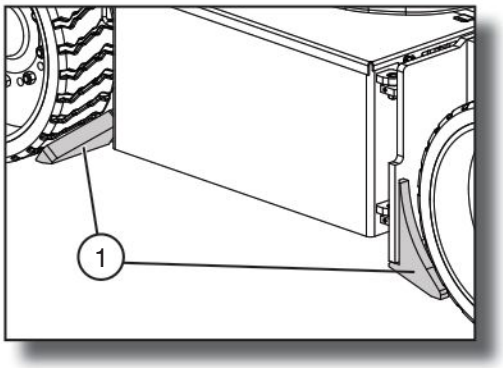


Figure 2-4. Pothole Protection

1. **Pothole Protection** - These steel weldments reduce ground clearance and assist in the stability of an elevated MEWP in the event of the MEWP encountering a “drop-off” or “pothole.”

WARNING

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

2.2-8 Secondary Guarding Electrical (SGE)

The purpose of this device is to prevent sustained involuntary operation of the lift, which may result from accidental contact with the platform controls, and to activate an alarm (audible/visual) to alert others of the event.

WARNING

This attachment will not prevent collision or eliminate the potential for injuries resulting from a collision.

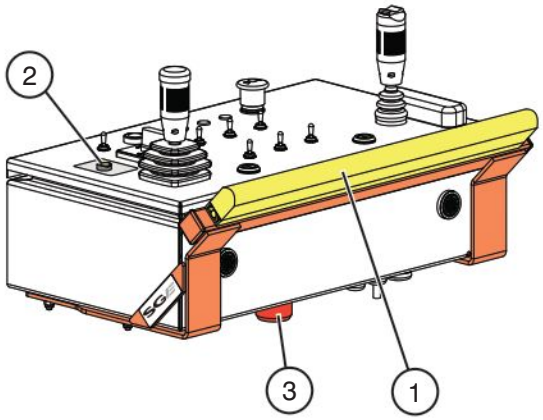


Figure 2-5. Secondary Guarding Electrical (SGE)

1. **Sensor Bar** - This bar is located in front of the platform control console. When pressure is applied to the sensor bar, it interrupts/halts all functions.

2. **Reset Button** - This button is located on the top left corner of the platform control console. It lights up when pressure is applied to the sensor bar for more than 1 second. When depressed, it shuts off the audible/visual alarm.

3. **Audible/Visual Alarm** - This alarm is located on the underside of the platform control console. It activates when pressure is applied to the sensor bar.

2.2-9a Platform Load Sensing System

The platform load sensing system is a device that senses for an overload on the platform before the system disables boom and drive functions. This system is active when MEWP is powered on.

If the platform is overloaded while in work mode (boom is raised greater than 15 degrees from horizontal or is extended greater than 6 inches), the load sensing system will disable all normal functions and signal the operator with an indicator light and an audible alarm.

If the platform is overloaded while in travel mode, the load sensing system will signal the operator with an indicator light and an audible alarm but will not disable any normal functions.

The following table shows the progression of warnings, indicated to the operator, up to the point of overload.

2.2-9b Overload Status Table

Weight	Indicator Light	Audible Alarm	Platform Function Controls
93% - 99%	On	Off	Enabled
100%	Flashing	Off	Enabled
≥ 100% (Work Mode)	Flashing	Pulsing	Disabled
≥ 100% (Travel Mode)	Flashing	Pulsing	Disabled

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WARNING

Do not operate emergency power unit if platform capacity is exceeded. If the platform is overloaded due to contact with an overhead obstruction, do one of the following:

- **Remove the obstruction from the platform, then after a four-second delay normal functions can be resumed.**
- **Use the emergency power unit at the base control console to release the platform from the obstruction.**

2.2-10 Base Control Console

This control console is located in the panel mounted in the control compartment.

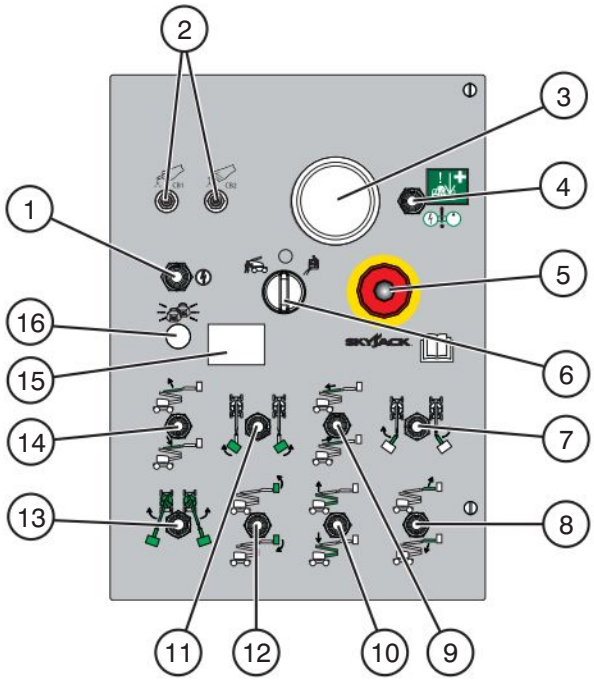


Figure 2-6. Base Control Console

1. **Function Enable Switch** - This momentary switch, when held in "" function enable position, allows base control functions to operate.

2. **Circuit Breakers** - In the event of a power overload or positive circuit grounding, the circuit breaker pops out. Push breaker back in to reset.

3. **Hourmeter -** The display shows accumulated operating time, battery level and error codes. Refer to Service manual for error codes.

4. **Emergency Power Switch** - This switch, when held in "" emergency power position, allows base control functions to operate using emergency power unit.

5. **Emergency Stop Button** - This red "mushroom-head" "" pushbutton disconnects power to control circuit.

6. **Base/Off/Platform Key Switch** - This three-way selector switch allows operator to activate "" base control console, "" turn off power to MEWP, or activate "" platform control console.

7. **Jib Rotation Switch** - This switch controls "" left or "" right rotation of jib.

8. **Jib Up/Down Switch** - This switch controls "" up or "" down movement of jib.

9. **Boom Extend/Retract Switch** - This switch controls "" extension or "" retraction of fly boom.

10. **Riser Raise/Lower Switch** - This switch controls "" raising or "" lowering of riser.

11. **Platform Rotation Switch** - This switch controls "" left or "" right rotation of platform.

12. **Platform Leveling Override Switch** - This switch overrides automatic leveling of platform and controls "" tilting up or "" tilting down of 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.

2.2-10 Base Control Console (Continued)

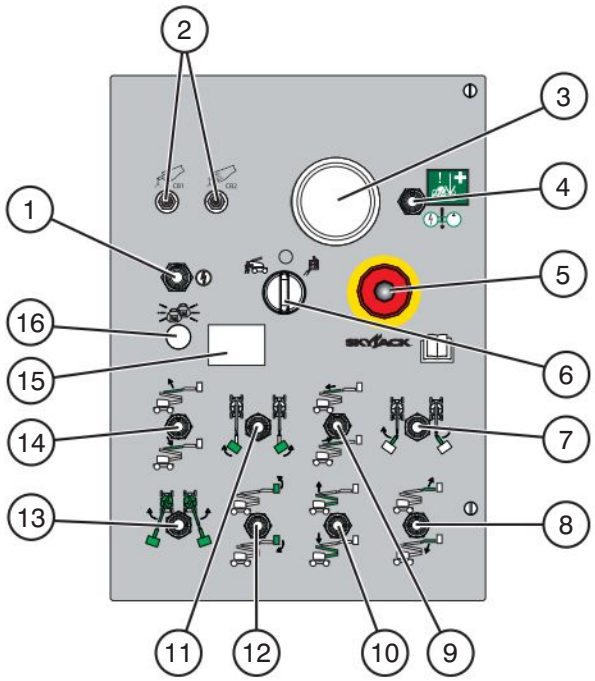


Figure 2-6. Base Control Console

13. **Turret Rotation Switch** - This switch controls "" left or "" right rotation of turret.

14. **Boom Raise/Lower Switch** - This switch controls "" raising or "" lowering of main boom.

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

16. **Overload Light** - This red light "" indicates overload status. Refer to Section 2.2-9.

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.

2.2-11 Platform Control Console

This control console is mounted at front guardrail of the platform. It has the following controls:

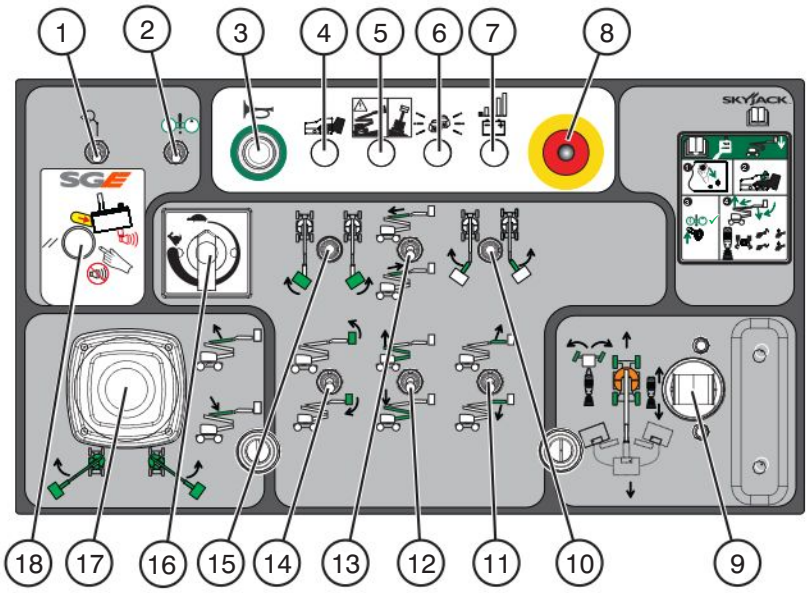


Figure 2-7. Platform Control Console

1. **Work Light Switch (If Equipped)** - This switch "" turns on work light.

2. **Emergency Power Unit** - This switch "" enables emergency power unit.

3. **Horn Pushbutton** - This "" pushbutton sounds an automotive-type horn.

4. **Footswitch Indicator Light** - This light "" illuminates when footswitch is depressed. A 7-second anti-tiedown feature deactivates footswitch when operator depresses it for 7 seconds without activating any function.

5. **Chassis Tilt Indicator Light**- This light ""illuminates when the MEWP chassis is at an inclination that activates the tilt sensor.

WARNING

When tilt settings are exceeded, causing the alarm to sound and the light to illuminate, the platform should be lowered and retracted immediately. Refer to Section 3.9 for instructions on how to recover from an inclined position.

NOTE

- If the MEWP becomes tilted while elevated, causing the alarm to sound and the light to illuminate, drive functions will be disabled.
- If the MEWP is tilted while in the lowered travel position, movement of the fly boom extend, riser up, or main boom into the elevated position will be stopped at the limits of the lowered travel position. The alarm will sound and the light will illuminate. Further fly boom extension, riser up, or main boom rising will be disabled.
- Resetting power to the controls (e.g. e-stop depressed then pulled out) when the MEWP is tilted and at the limits of the lowered travel position will cause the MEWP to be considered tilted while elevated.

6. **Overload Light** - This red light "" indicates overload status. Refer to Section 2.2-9.

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.

2.2-11 Platform Control Console (Continued)

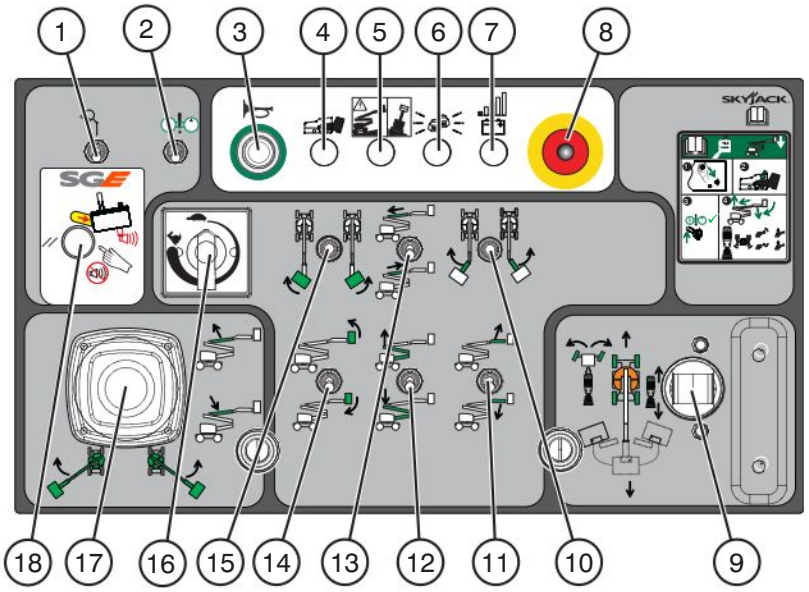


Figure 2-7. Platform Control Console

7. **Battery Level Indicator Light** - This light ""illuminates when the battery level is low and the batteries require charging. Refer to Section 3.10 for instructions on how to charge the batteries.

8. **Emergency Stop Button/Operation Light** - This button "", when depressed, disconnects power to the control circuit. The operation light indicates upper control availability. It glows when both emergency stop buttons on the platform control console and the base control console are pulled out.

9. **Drive/Steer Controller** - This single-axis lever controls driving "" forward or "" backward. The rocker switch controls steering "" left or "" right. Internal springs return the lever to neutral when released.

CAUTION

The forward direction of travel will be in the general direction the counterweight is facing while reverse will be the opposite. Care should be taken to confirm the counterweight orientation prior to activating any drive/steer functions.

10. **Jib Rotation Switch** - This switch controls "" left or "" right rotation of jib.

11. **Jib Up/Down Switch** - This switch controls "" up or "" down movement of jib.

12. **Riser Raise/Lower Switch** - This switch controls "" raising or "" lowering of riser.

13. **Boom Extend/Retract Switch** - This switch controls "" extension or "" retraction of fly boom.

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.

2.2-11 Platform Control Console (Continued)

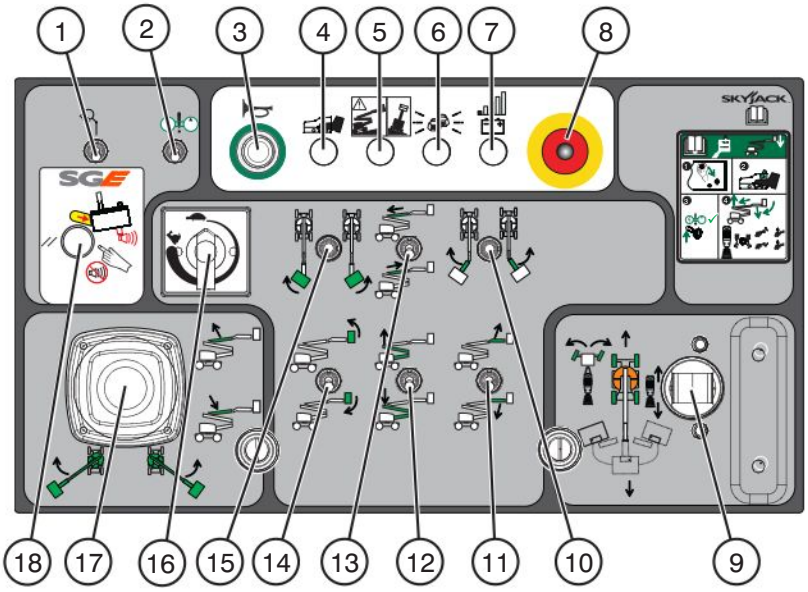


Figure 2-7. Platform Control Console

14. **Platform Leveling Override Switch** - This switch overrides automatic leveling of platform and controls “ ” tilting up or “ ” tilting down of platform.

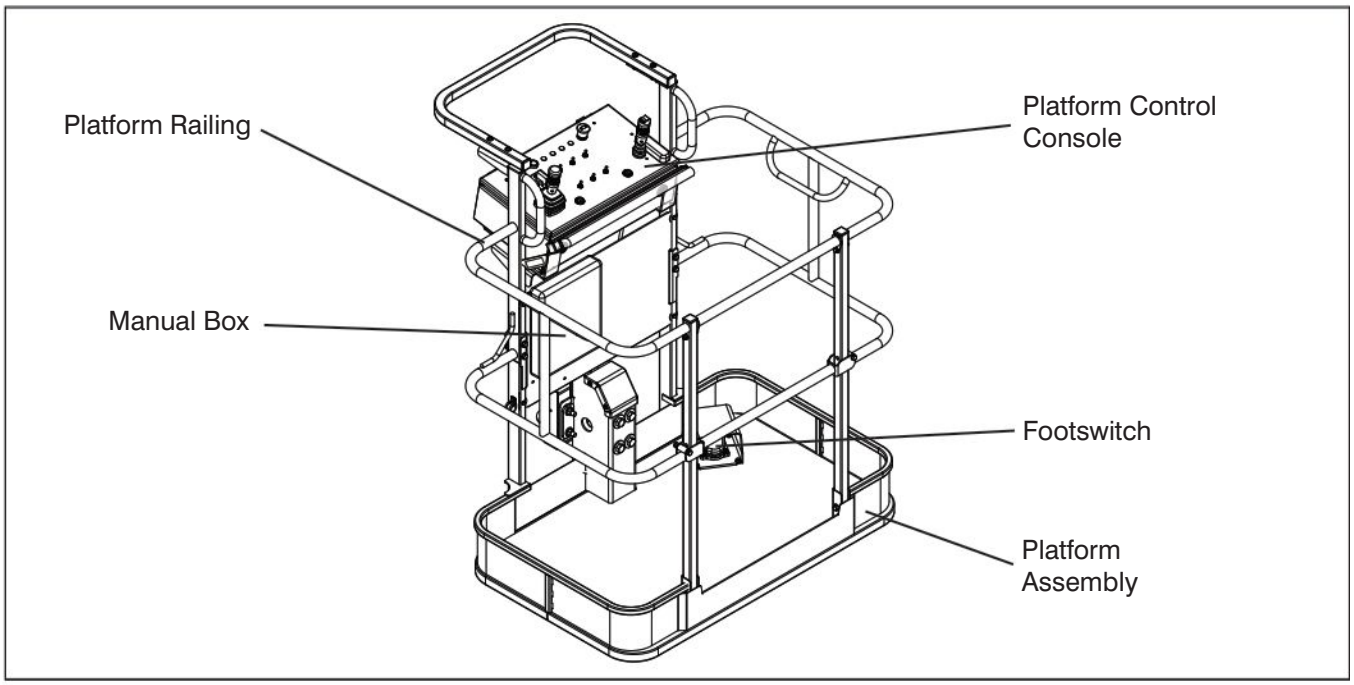
15. **Platform Rotation Switch** - This switch controls “ ” left or “ ” right rotation of platform.

16. **Function Speed Adjuster Dial** - This variable speed adjuster “ ” controls speed of fly boom extension/retraction, jib raising/lowering and platform rotation movements. This is used with switches 10, 11, 12, 13, 14 and 15.

17. **Boom/Turret Controller** - This dual-axis lever controls “ ” raising or “ ” lowering of main boom or rotating “ ” left or “ ” right of turret.

18. **Reset Button** - This button, when depressed, shuts off the audible/visual alarm from the SGE..

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 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 doing 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:

- boom to platform cable harness
- battery tray wiring harnesses
- hydraulic/electrical wiring harnesses
- steer sensor wires

2.3-3 Limit Switches

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

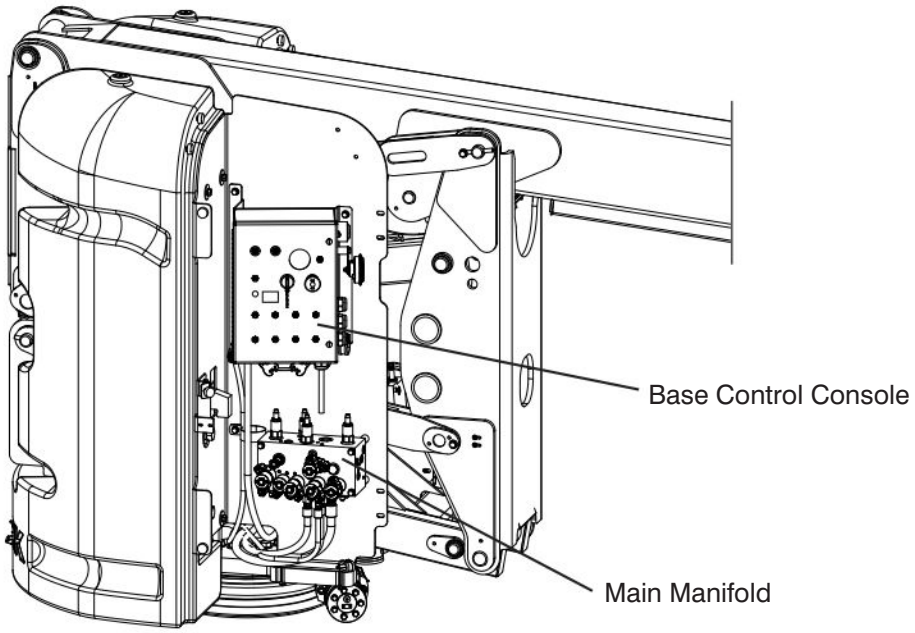
2.3-4 Hydraulic

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

Perform a visual inspection around the following areas:

- hydraulic tank filter, fittings, hoses, emergency power unit and turret/base surface
- hoses, main pump, filter and turret/base surface
- all hydraulic cylinders
- all hydraulic manifolds
- underside of the turret
- underside of the base
- ground area under the MEWP

FAMILIARIZATION



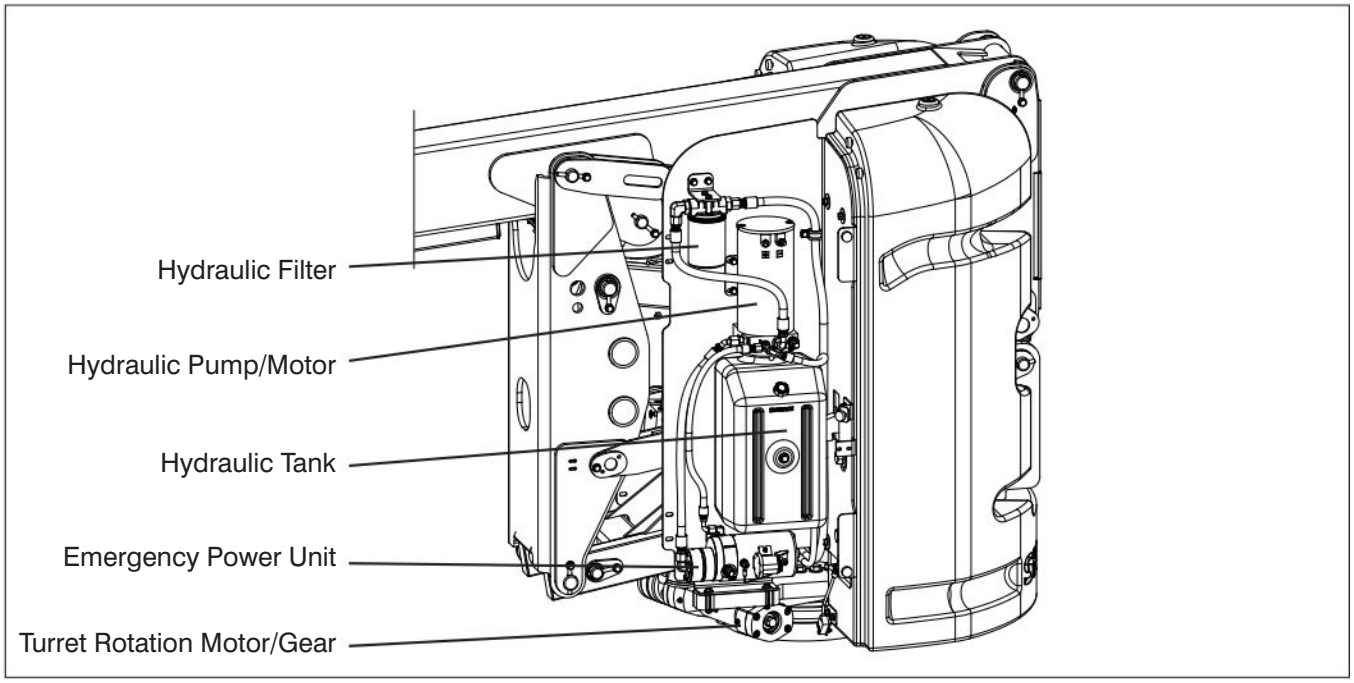
2.3-5 Control Compartment

- Ensure all compartment latches are secure and in proper working order.

- **Base Control Console**
  - Ensure all switches are returned to their neutral positions.
  - Ensure there are no loose or missing parts and there is no visible damage.

- **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.

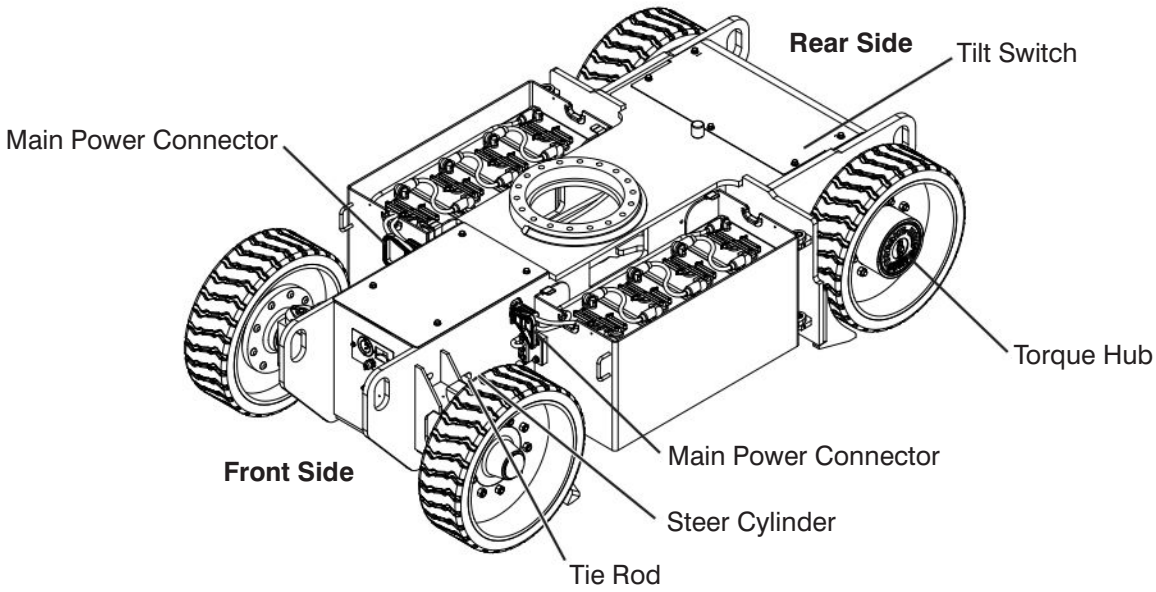
It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.



2.3-6 Motor/Hydraulic Compartment

- Ensure all compartment latches are secure and in proper working order.

- **Hydraulic Filter**
  - Ensure housing is secure and shows no visible damage or leakage.
- **Hydraulic Tank**
  - Ensure hydraulic filler cap is secure.
  - Ensure tank shows no visible damage and no evidence of hydraulic leakage.
- **Hydraulic Pump/Motor**
  - Ensure there are no loose or missing parts and there is no visible damage.
  - Ensure all bolts are properly tightened.
  - Ensure all fittings and hoses are properly tightened and there is no evidence of hydraulic leakage.
- **Hydraulic Oil**
  - Ensure boom is in stowed position, and then visually inspect the sight gauge located on the side of the hydraulic oil tank.
  - The hydraulic oil level should be between the minimum and maximum marks on the sight glass. Add oil as needed. Refer to Table 4.2b for recommended oil type.
- **Emergency Power Unit**
  - Ensure there are no loose or missing parts and there is no visible damage.
  - Ensure there are no loose wires or missing fasteners.
  - Ensure all fittings and hoses are properly tightened and there is no evidence of hydraulic leakage.
- **Turret Rotation Motor/Gear**
  - Ensure there are no loose or missing parts and there is no visible damage.
  - Ensure all bolts are properly tightened.
  - Ensure all fittings and hoses are properly tightened and there is no evidence of hydraulic leakage.



2.3-7 Base

- **Main Power Connectors**
  - Disconnect and lock out connector on either the left or right side of the MEWP.
  - Ensure all cables are secure and the connector is in proper working condition and has no visible damage.
- **Torque Hubs**
  - Ensure drive axle is properly secured, there are no loose or missing parts, all fittings and hoses are properly tightened and there is no evidence of hydraulic leakage.
- **Steer Cylinder Assembly**
  - Ensure steer cylinder assembly is properly secured, there are no loose or missing parts, all fittings and hoses are properly tightened and there is no evidence of hydraulic leakage.
- **Tie Rod**
  - Ensure there are no loose or missing parts, tie rod end studs are locked and there is no visible damage.
- **Wheel/Tire Assembly**

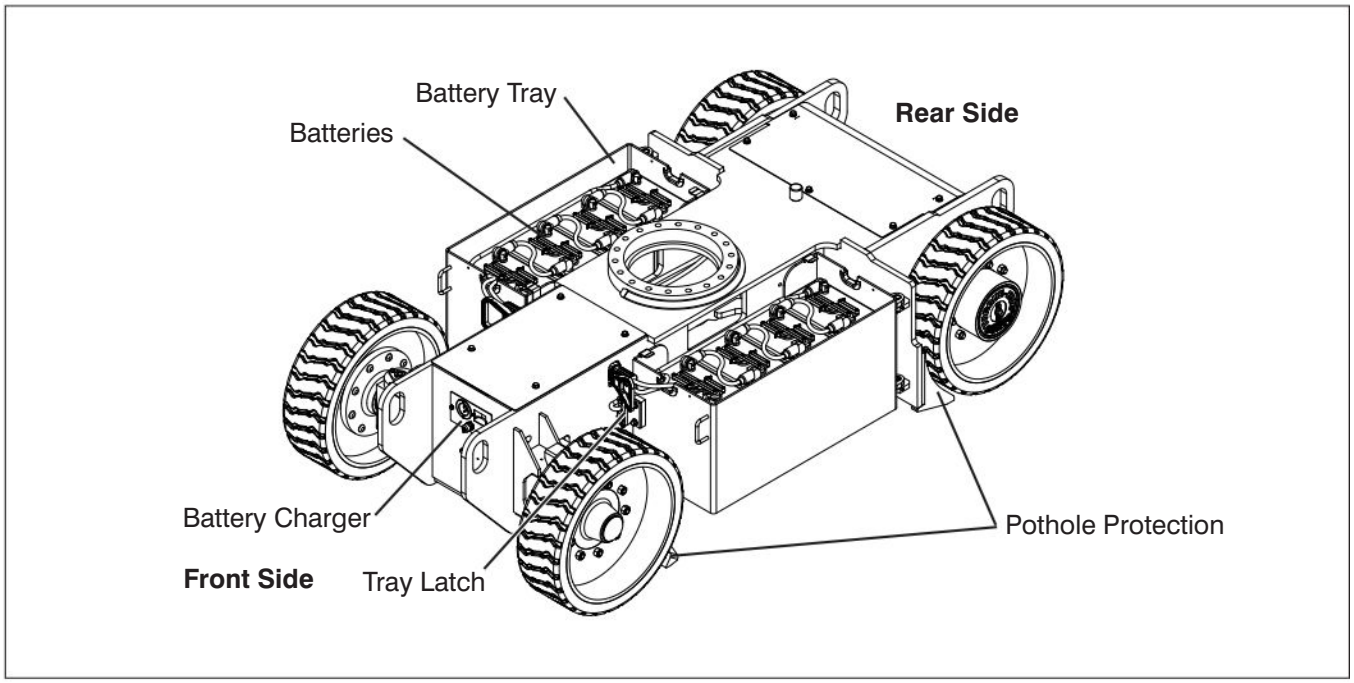
  The MEWP is equipped with solid rubber tires. Tire and/or wheel failure could result in an MEWP tip-over. Component damage may also result if problems are not discovered and repaired in a timely fashion.
  - Check all tire treads and sidewalls for cuts, cracks, punctures and unusual wear.
  - Check each 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.

Refer to Table 4.4 for tire/wheel specifications.

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.

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.



- **Battery Trays**
  - Ensure tray latches are secure and in proper working order.
- **Battery Charger**
  - Ensure charger is secure and shows no visible damage.
- **Batteries**
  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

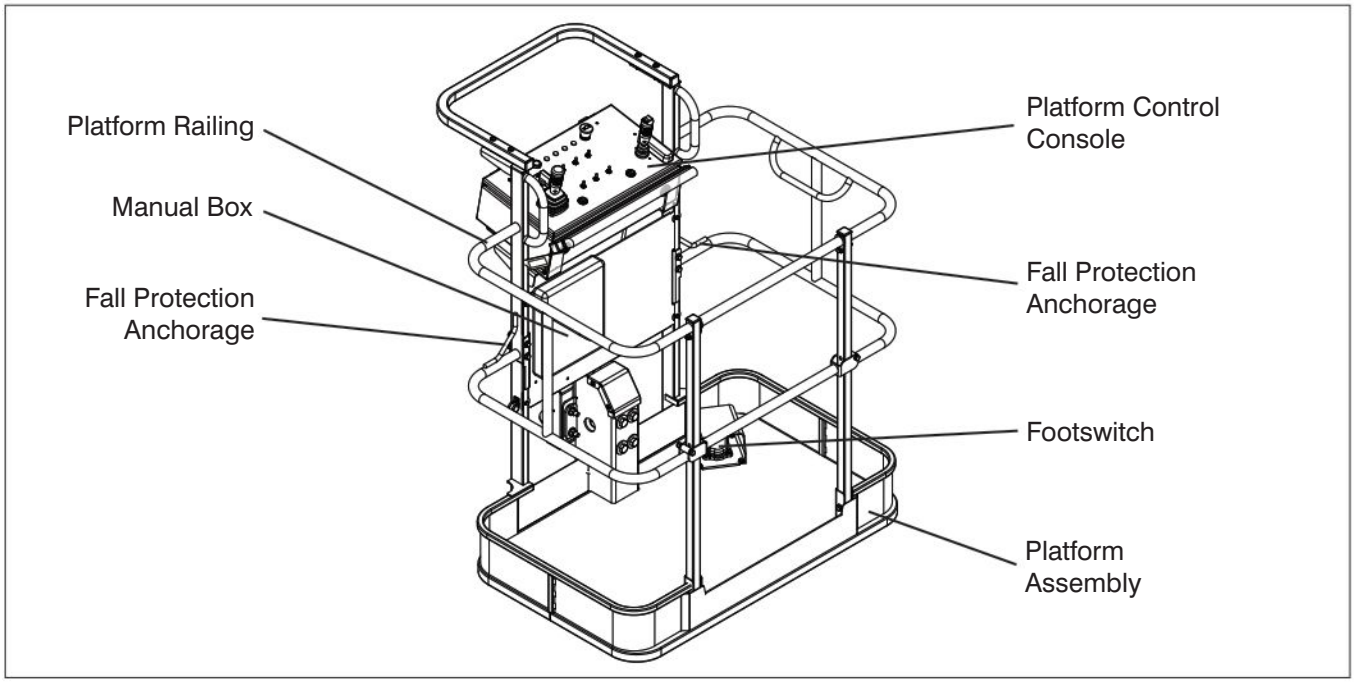
Battery acid is extremely corrosive - Wear proper eye and facial protection as well as appropriate protective clothing. If contact occurs, immediately flush with cold water and seek medical attention.

1. Check battery cases 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 13 mm (1/2") 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.

- **Pothole Protection**
  - Ensure there are no visible cracks and there are no signs of damage or deformation.
- **Electrical Panel**
  - Ensure panel is properly secured and there is no visible damage.
  - Ensure there are no loose wires or missing fasteners.



2.3-8 Manuals

Ensure a copy of operating manual, EC declaration and other important documents are 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.

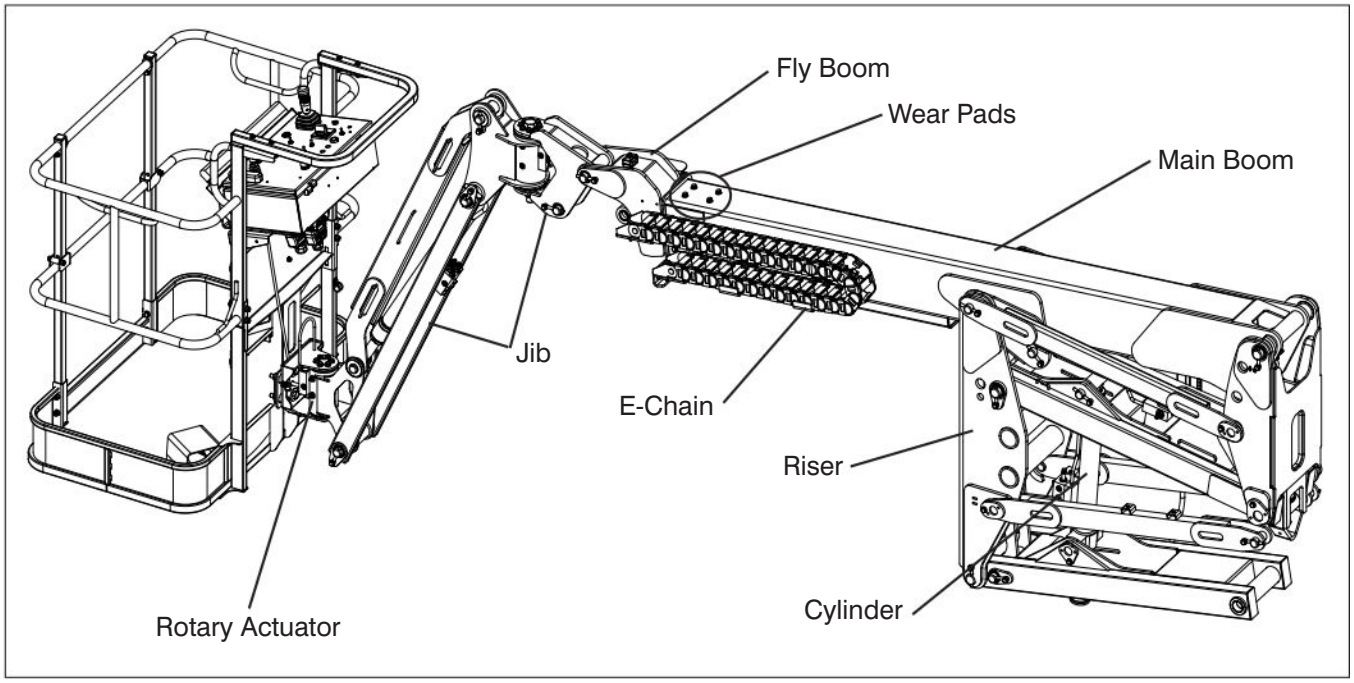
2.3-9 Platform Assembly

- 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 (if equipped) is in good working order.
- Ensure there is no permanent deformation.
- Ensure footswitch is in good working order and has not been modified, disabled or blocked.
- Ensure AC outlet has no visible damage and is free from dirt or obstructions.

2.3-10 Platform Control Console

- Ensure all switches/controllers are returned to neutral and are properly secured.
- Ensure there are no loose or missing parts and there is no visible damage.

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.



2.3-11 Rotary Actuator

- Ensure there are no loose or missing parts and there is no visible damage.
- Ensure all bolts and pins are properly tightened.
- Ensure all hoses are properly tightened and there is no evidence of hydraulic leakage.

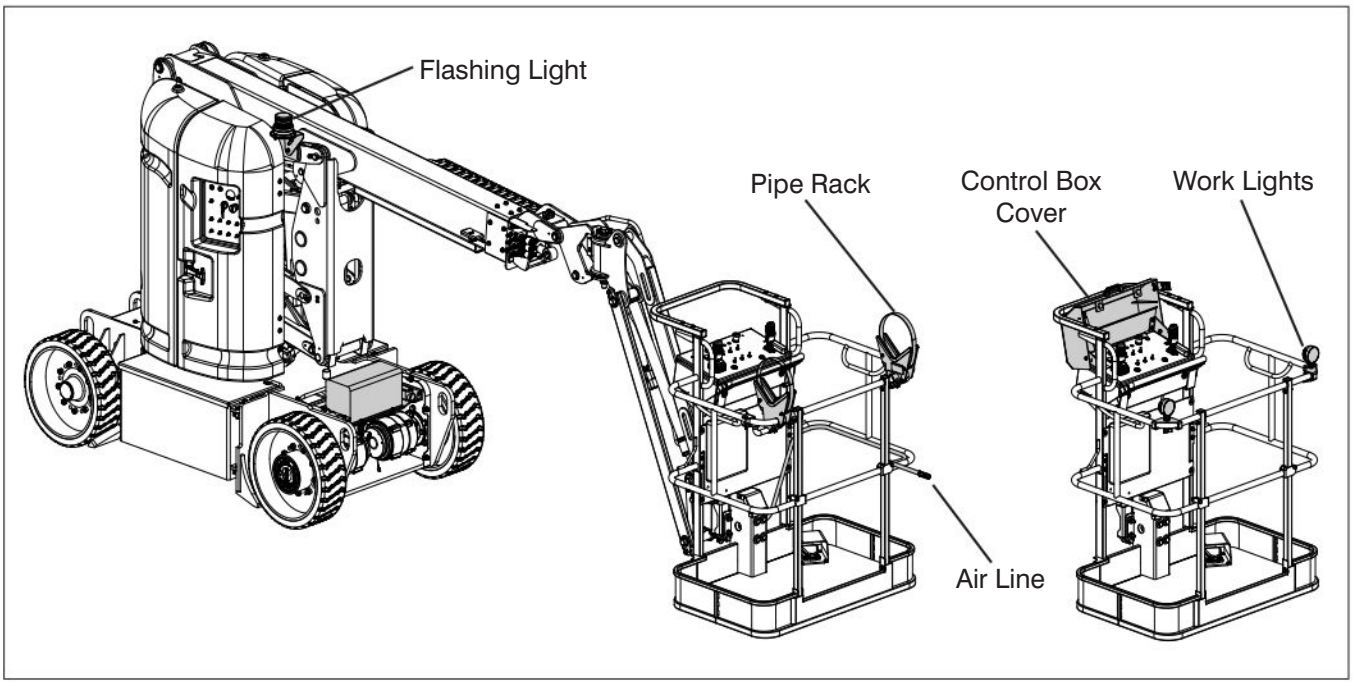
2.3-12 Jib (Rotating)

- Ensure there are no loose or missing parts and there is no visible damage.
- Ensure all bolts and pins are properly tightened.
- Ensure all hoses are properly tightened and there is no evidence of hydraulic leakage.

2.3-13 Boom

- **Main and Fly Booms**
  - Ensure there are no loose or missing parts and there is no visible damage.
  - Ensure all bolts and pins are properly tightened.
  - Ensure there are no visible cracks in welds or structure and there are no signs of deformation.
  - Ensure all hoses are properly tightened and there is no evidence of hydraulic leakage.
- **Riser**
  - Ensure there are no loose or missing parts and there is no visible damage.
  - Ensure all bolts and pins are properly tightened.
  - Ensure there are no visible cracks in welds or structure and there are no signs of deformation.
  - Ensure all hoses are properly tightened and there is no evidence of hydraulic leakage.
- **Cylinders**
  - Ensure all cylinders are properly secured and there is no evidence of leakage.
- **Wear Pads**
  - Ensure all bolts are tight, there is no visible damage to the wear pads and that no parts are missing.
- **E-Chain**
  - Ensure there are no loose or missing parts and there is no visible damage.

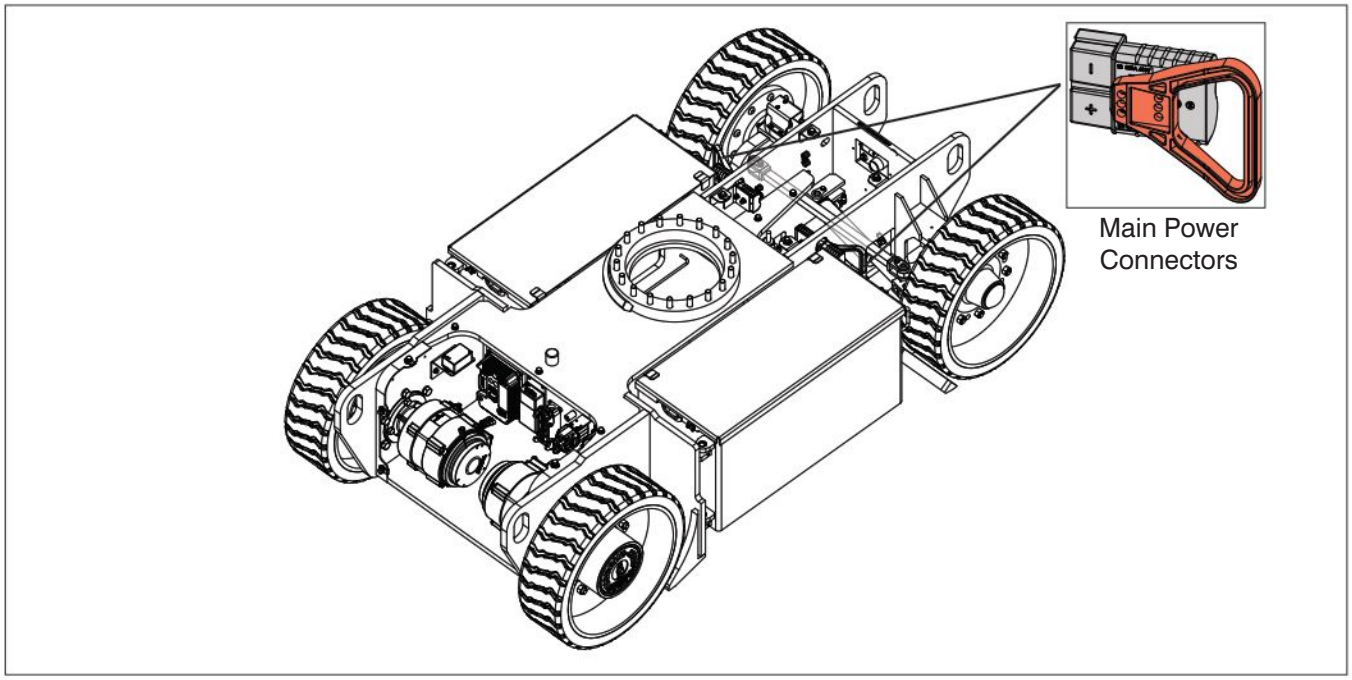
It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the aerial platform.



2.3-14 Optional Equipment/Attachments

- **Work Light (If Equipped)**
  - Ensure lamps are properly secured with no signs of visible damage.
  - Ensure mounting bracket is properly secured.
  - Ensure there are no loose wires or missing fasteners.
- **Flashing Amber Light (If Equipped)**
  - Ensure lamp is properly secured with no signs of visible damage.
- **Pipe Rack (If Equipped)**
  - Ensure pipe rack assemblies are properly secured with no signs of visible damage.
- **Control Box Cover (If Equipped)**
  - Ensure control box cover is properly secured with no signs of visible damage.
- **Air Line (If Equipped)**
  - Ensure air line is properly secured with no signs of visible damage.

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.



2.4 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.

IMPORTANT

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

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 3.7 - Start Operation.

NOTE

All motion alarm (if equipped) should sound while activating the footswitch.

2.4-1 Test Main Power Connectors

1. On the left side of the MEWP, disconnect and lock out connector.
   Result: MEWP functions should not operate.

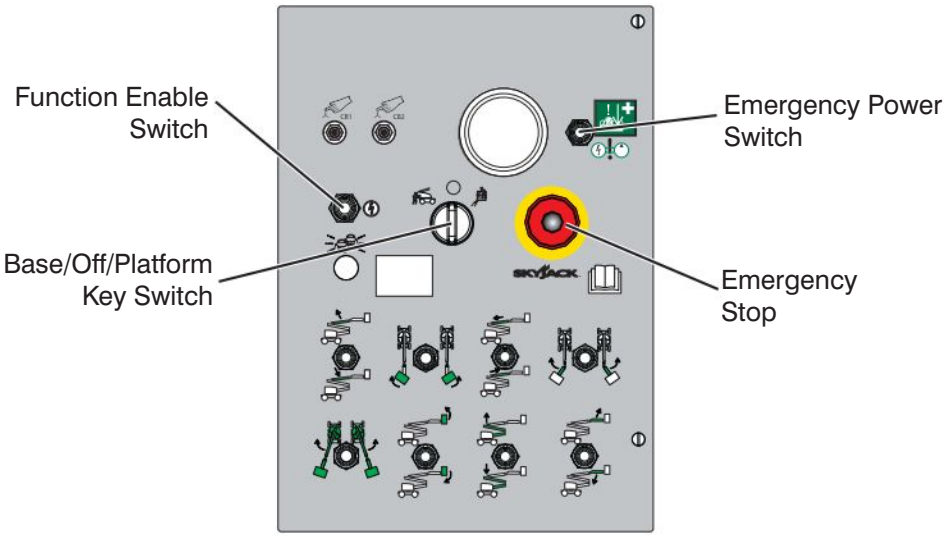
2. Remove lock and plug in connector.
   Result: Power to MEWP should be restored.

3. On the right side of the MEWP, disconnect and lock out connector.
   Result: MEWP functions should not operate.

4. Remove lock and plug in connector.
   Result: Power to MEWP should be restored.

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.

Base Control Console



2.4-2 Base Control Console

NOTE

While operating the emergency power unit, the base controls will override the platform controls, even when the emergency stop button on the platform is depressed.

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

WARNING

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

- **Test Base Emergency Stop Light and Base Emergency Stop Button**

  1. Turn base/off/platform key switch to "" base position.
  2. On base control console, pull out "" emergency stop button.
     Result: Emergency stop light should continuously illuminate.
  3. Push in "" emergency stop button and attempt to raise or lower the platform.
     Result: Platform raising and lowering functions should not operate.
  4. Pull out "" emergency stop button.

- **Test Function Enable Switch and All Boom Functions**

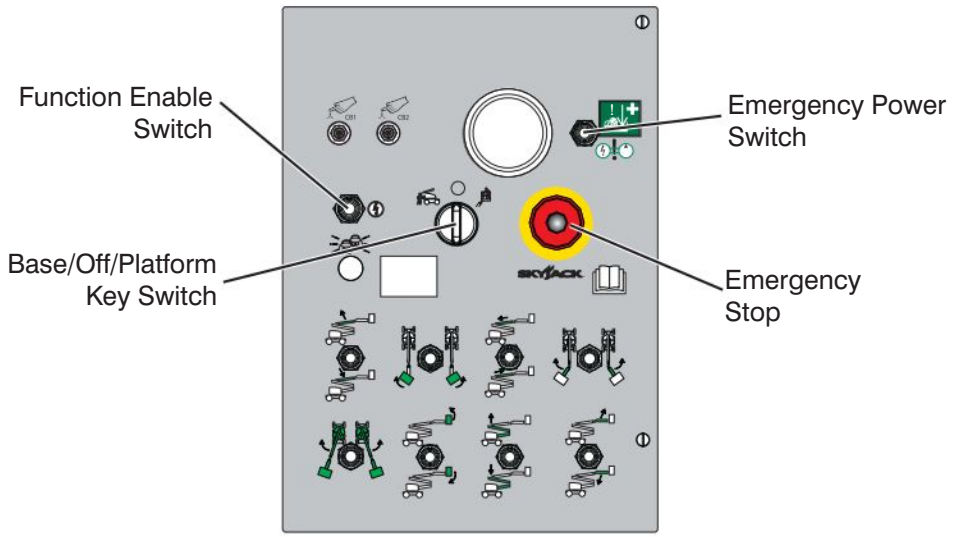
WARNING

Ensure that there are no personnel or obstructions in test area and there is sufficient room for boom to swing.

1. Do not hold "" function enable switch. Attempt to activate each boom and platform switch.
   Result: All boom and platform functions should not operate.
2. Hold "" function enable switch and activate each boom and platform function.
   Result: All boom and platform functions should operate as selected.

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.

Base Control Console



- **Test Platform Self-leveling**

1. Lower boom to stowed position.
2. Adjust platform to a level position using platform leveling switch, which controls " " tilting up or " " tilting down of platform.
3. Raise " " and lower " " main boom through a full cycle.
   Result: Platform should remain level at all time.

- **Test Emergency Power**

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

CAUTION

When operating on emergency power, do not operate more than one function at a time to avoid overloading 24-Volt emergency pump motor. Do not use emergency power unit continuously for more than two minutes.

NOTE

To conserve battery power, test each function through a partial cycle.

2. On base control console, ensure " " emergency stop button is pulled out.
3. Turn base/off/platform key switch to " " platform position.
4. Turn " " emergency power switch to "|" on position and activate each boom function.
   Result: All selected functions should operate.
5. Turn base/off/platform key switch to " " base position.
6. Turn " " emergency power switch to "|" on position and activate each boom function.
   Result: All selected functions should operate.

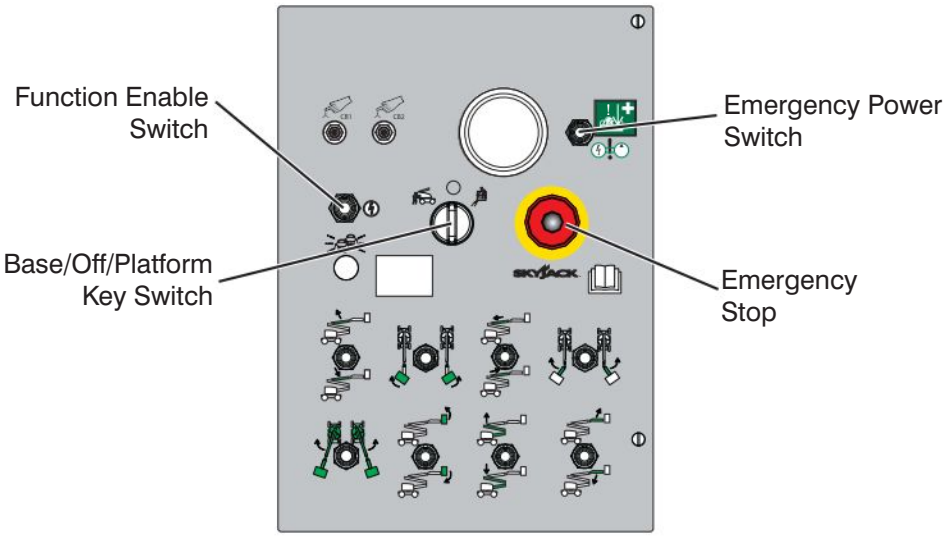
NOTE

The emergency power unit has two-minute duty cycle.

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.

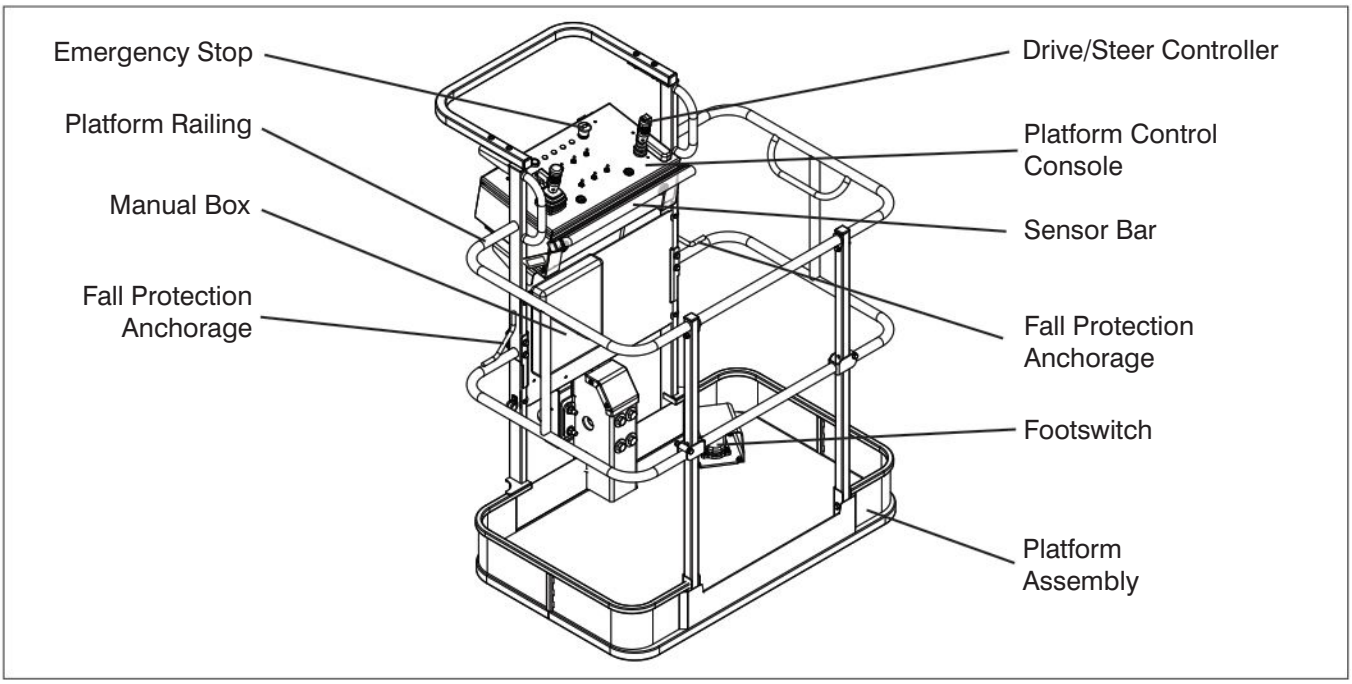
Base Control Console



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

1. Ensure both "" emergency stop buttons are pulled out.
2. On base control console, turn base/off/platform key switch to "" off position. Attempt to raise or lower the platform.
   Result: Platform raising and lowering functions should not operate.
3. On base control console, turn off/base platform key switch to "" platform position.
4. On base control console, attempt to activate each boom and platform switch while holding function enable switch.
   Result: All boom and platform functions should not operate while holding function enable switch.
5. On base control console, turn off/platform/base key switch to "" base position. Attempt to raise or lower the platform.
   Result: Platform raising and lowering functions should operate.

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.



2.4-3 Platform Control Console

WARNING

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

1. Ensure both "" emergency stop buttons are pulled out.
2. Turn the base/off/platform key switch to the "" platform position.
3. Enter platform and close gate (if equipped).

WARNING

DO NOT operate any control on platform control console without proper fall protection secured to designated location in platform. Failure to avoid this hazard could result in death or serious injury!

WARNING

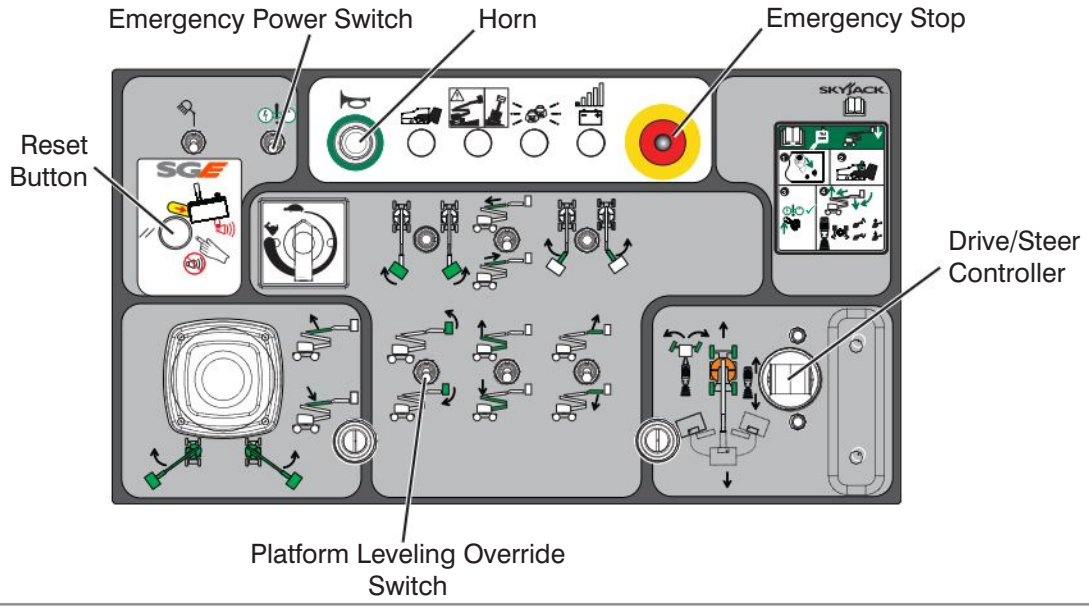
Ensure that there are no personnel or obstructions in test area and that there is sufficient room for boom to swing.

- **Test Secondary Guarding Electrical (SGE)**

1. Press the sensor bar for less than 1 second and then release.
   Result: The audible/visual alarm should activate while the bar is being pressed and turn off after being released. The reset button should illuminate as soon as the sensor bar is pressed, and turn off when the bar is released.
2. Press the sensor bar for more than 1 second and then release.
   Result: The audible/visual alarm should activate immediately and stay on after the bar is released. The reset button should illuminate.
3. Press the reset button.
   Result: The audible/visual alarm and reset button light should go off.
4. Press the sensor bar for more than 1 second and then release.
   Result: The audible/visual alarm should activate immediately and stay on after the bar is released. The reset button should illuminate.
5. Depress and hold footswitch.

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



6. Turn "" emergency power switch to "" on position and activate any function (except drive/steer) momentarily.
   Result: The function should operate and the platform audible/visual alarm and reset button light should turn off.

7. Activate any drive function.

8. Press the sensor bar for less than 1 second and then release.
   Result: The function will stop while the bar is being pressed and motion will resume when the bar is released. The audible/visual alarm should activate while the bar is being pressed and turn off after being released. The reset button should illuminate as soon as the sensor bar is pressed and turn off when the bar is released.

9. Press the sensor bar for more than 1 second and then release.
   Result: The function will stop and the audible/visual alarm should activate immediately and stay on after the bar is released. The reset button should illuminate.

10. Press the reset button.
    Result: The audible/visual alarm and reset button light should go off.

11. Activate any platform function (i.e. lift/extend/rotate).

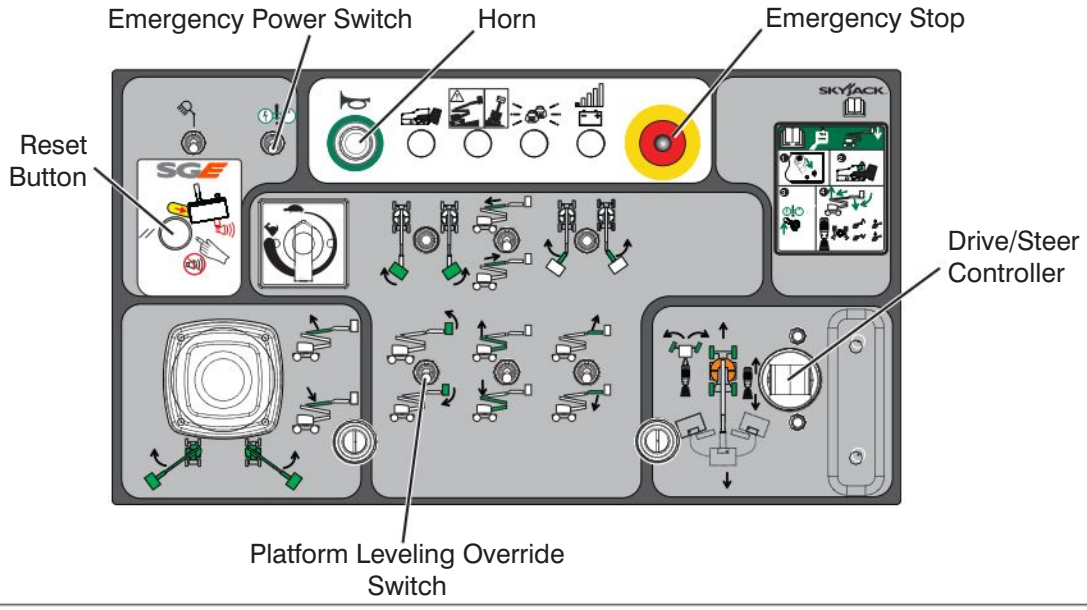
12. Press the sensor bar for less than 1 second and then release.
    Result: The function will stop while the bar is being pressed and motion will resume when the bar is released. The audible/visual alarm should activate while the bar is being pressed and turn off after being released. The reset button should illuminate as soon as the sensor bar is pressed and turn off when the bar is released.

13. Press the sensor bar for greater than 1 second and then release.
    Result: The function will stop and the audible/visual alarm should activate immediately and stay on after the bar is released. The reset button should illuminate.

14. While the audible/visual alarm is sounding, verify that the LED solid light is also active.

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



WARNING

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

15. Exit the platform.

16. On the base control console, activate the emergency power switch and the function enable switch and any function momentarily.
Result: The function should operate and the platform audible/visual alarm and reset button light should turn off.

WARNING

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

17. Enter platform and close gate (if equipped).

- **Test Platform Emergency Stop Light and Platform Emergency Stop Button**

1. On platform control console, pull out "" emergency stop button.
Result: Emergency stop light should continuously illuminate.

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

- **Test Footswitch**

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

2. Without depressing footswitch, test each boom and platform function.
Result: MEWP functions should not operate.

NOTE

A 7-second anti-tiedown feature deactivates footswitch when operator depresses it for 7 seconds without activating any function.

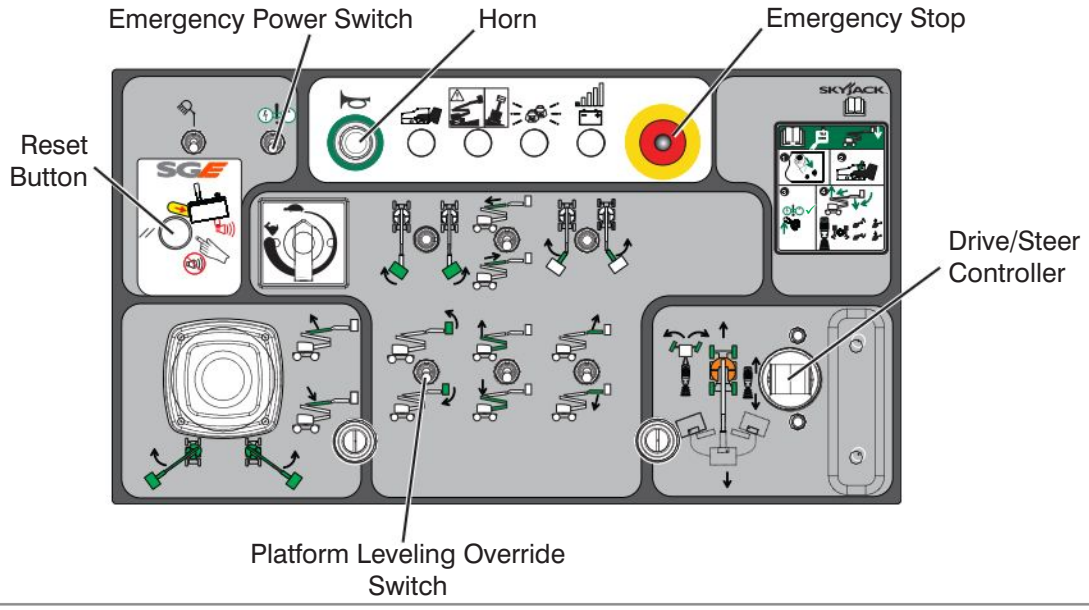
- **Test Steering**

1. Depress and hold footswitch.

2. Press rocker switch on top of drive/steer controller to "" left and "" right.
Result: Steer wheels should turn left and right.

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 Function**

WARNING

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

1. Ensure path of intended motion is clear.
2. Ensure boom is in stowed position and fly boom is fully retracted.

NOTE

Stowed position indicates that the MEWP is in the fully retracted state, the boom and basket are centered between the drive wheels and the steer wheels are facing straight ahead.

3. Depress and hold footswitch.
4. Slowly move drive/steer controller in " " forward or " " backward direction until MEWP begins to move, and then return handle to center position.

Result: MEWP should move forward in the direction of the steer wheels when the drive/steer controller is pushed forward and backward in the direction of the drive wheels when the drive/steer controller is pulled backward.

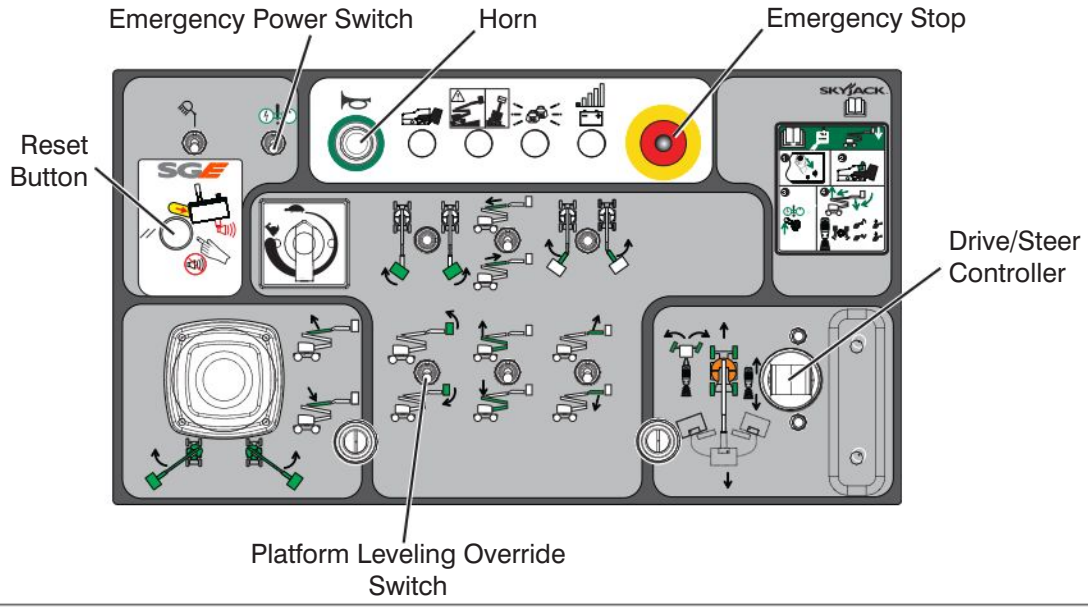
5. Rotate turret past 90 degrees from the stowed position.
6. Repeat steps 3 and 4.
Result: MEWP should move forward in the direction of the drive wheels when the drive/steer controller is pushed forward and backward in the direction of the steer wheels when the drive/steer controller is pulled backward.

NOTE

The general direction of the turret and boom relative to the chassis indicates the forward direction of motion.

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 Speed**

1. Depress and hold footswitch.
2. Raise "" main boom to 15 degrees above horizontal and then slowly move drive/steer controller to full drive position.
   Result: The maximum achievable drive speed should be significantly less than stowed drive speed.
3. Lower main boom to stowed position.
4. Extend "" fly boom approximately 10 cm (4 in.) and then slowly move drive/steer controller to full drive position.
   Result: The maximum achievable drive speed should be significantly less than stowed drive speed.
5. Retract fly boom.
6. Raise "" riser until upper riser arm is horizontal and then slowly move drive/steer controller to full drive position.
   Result: The maximum achievable drive speed should be significantly less than stowed drive speed.
7. Lower riser to stowed position.

- **Verify Load Sensing Module Self-Check**

1. Push in "" emergency stop button.
2. Pull out "" emergency stop button.
   Result: After four seconds of time elapses, the red light and audible alarm pulse two times. This indicates the system is active and there are no faults.

- **Test Emergency Power**

CAUTION

When operating on emergency power, do not operate more than one function at a time to avoid overloading 24-Volt emergency pump motor. Do not use emergency power unit continuously for more than two minutes.

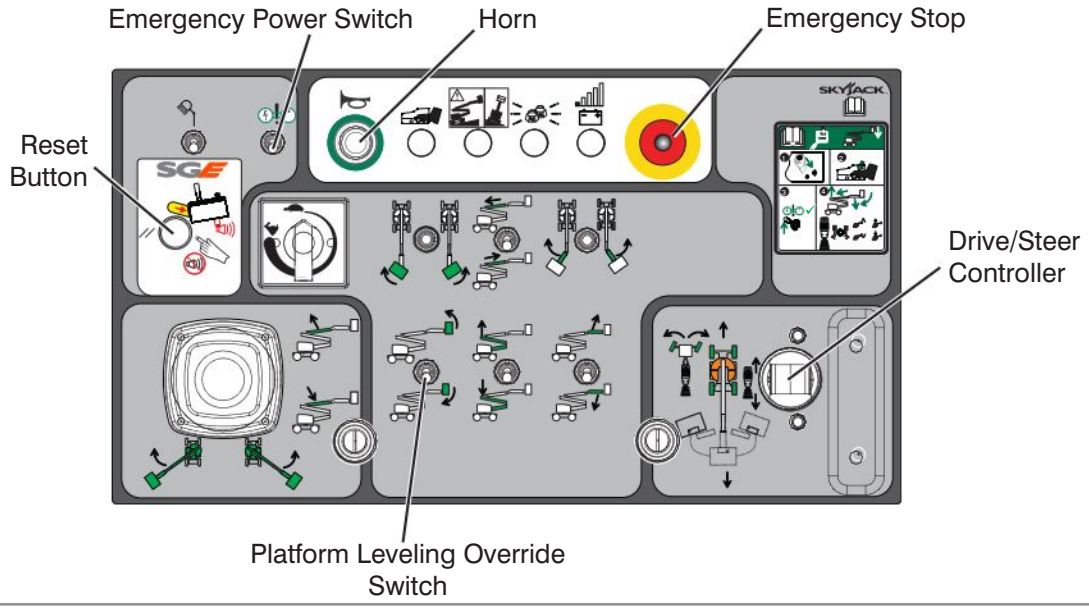
NOTE

To conserve battery power, test each function through a partial cycle.

1. Depress and hold footswitch.

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



2. Turn "" emergency power switch to "" on position and activate each function control handle or switch.
   Result: All boom functions should operate, except drive/steer functions.

NOTE

The emergency power unit has two-minute duty cycle.

- **Test Horn**

1. Push "" horn pushbutton.
   Result: Horn should sound.

- **Test Brakes**

WARNING

Brakes will engage instantly when you release footswitch, causing MEWP to stop immediately.

1. Move MEWP to a firm, level surface to ensure similar traction on left and right hand side tires.
2. Ensure boom is in stowed position and the steer wheels are facing straight ahead.
3. Depress and hold footswitch and drive MEWP "" forward.
4. Remove your foot from footswitch.
   Result: MEWP should come to an 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.
5. Repeat steps 3 and 4 for driving in "" reverse.

- **Test Manual Platform Leveling**

1. Depress and hold footswitch.
2. On platform leveling override switch, select "" up position to tilt platform up or "" down position to tilt platform down.
   Result: Platform should tilt up or down.

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.

2.5 Winching and Towing Procedure

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

WARNING

Ensure boom is in stowed position before winching or towing. Sudden motion could cause 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 obstacle. In such cases, operation must be extremely smooth with no sudden movements and must not exceed a speed of 50 mm/sec (2 in./sec).

WARNING

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

WARNING

Do not winch or tow MEWP on grade steeper than 35%.

WARNING

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

1. Before winching or towing MEWP, fully retract, lower and position boom over rear drive wheels in line with direction of travel.

2. Manually release brakes (refer to Section 2.5-1).

3. Remove wheel chocks or blocks, and then winch or tow MEWP to desired location.

4. Position MEWP on a firm and level surface.

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

6. Locate disengage cap (Figure 2-8 - item 1).
   a) Using a 11mm (7/16”) wrench, remove bolts.
   b) Remove disengage cap and rotate to outward position (refer to Figure 2-9).
   c) Reattach disengage cap and fasten bolts, using a 11mm (7/16”) wrench. Brake is now reengaged.

NOTE

Ensure o-ring remains seated.

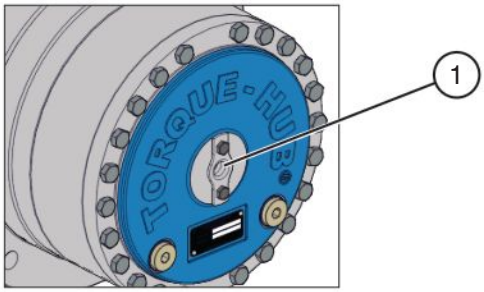


Figure 2-8. Disengage Cap

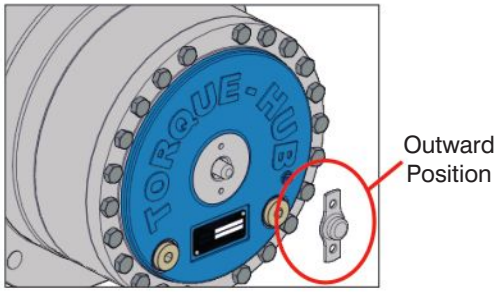


Figure 2-9. Disengage Cap - Outward Position

NOTE

Brakes automatically apply when platform controls are engaged.

WARNING

Brakes must be applied immediately after reaching desired location.

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.

2.5-1 To Release Brakes Manually

Brakes must be manually disengaged for winching or towing.

WARNING

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

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

2. On either the left or right side of the MEWP, disconnect and lock out main power connector.

CAUTION

Do not use hydraulic power with brake disengaged.

3. Locate disengage cap (Figure 2-10 - item 1).
   a) Using a 11mm (7/16") wrench, remove bolts.
   b) Remove disengage cap and rotate to inward position (refer to Figure 2-11).
   c) Insert disengage cap and fasten bolts, using a 11mm (7/16") wrench. Brake is now released.

NOTE

Ensure o-ring remains seated.

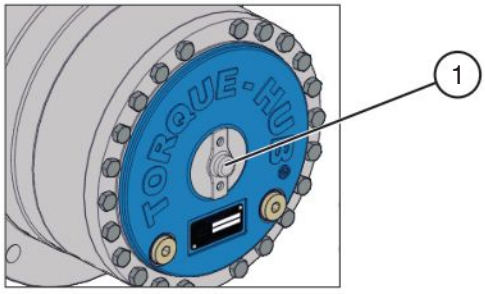


Figure 2-10. Disengage Cap

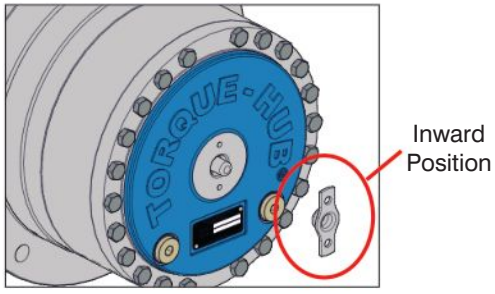


Figure 2-11. Disengage Cap - Inward Position

WARNING

Brakes must be applied immediately after reaching desired location. Refer to Section 2.5 on how to reengage brakes.

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.

2.6 Emergency Lowering Procedures

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

NOTE

The emergency power unit has two-minute duty cycle.

CAUTION

Do not use emergency power unit continuously for more than two minutes.

At Base Control Console:

1. Pull out "" emergency stop button.
2. Select either "" base position or "" platform position from key switch.
3. Move and hold "" emergency power switch up or down and activate desired boom function.

At Platform Control Console:

1. Pull out "" emergency stop button.
2. Depress and hold footswitch.
3. Move and hold "" emergency power switch up and activate desired boom function.

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.

3.0 Operation

This section provides the necessary information needed to operate the MEWP. It is important that the user reads and understands this section 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 operator's daily inspection checklist 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 qualified/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 4.7, even if the operator is not directly responsible for the maintenance of this MEWP.

3.1-3 Maintenance and Inspection Schedule

- Refer to Service manual for frequent (every 3 months or 150 hours) and annual inspection details.
- The actual operating environment of the MEWP may affect the maintenance schedule.

WARNING

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

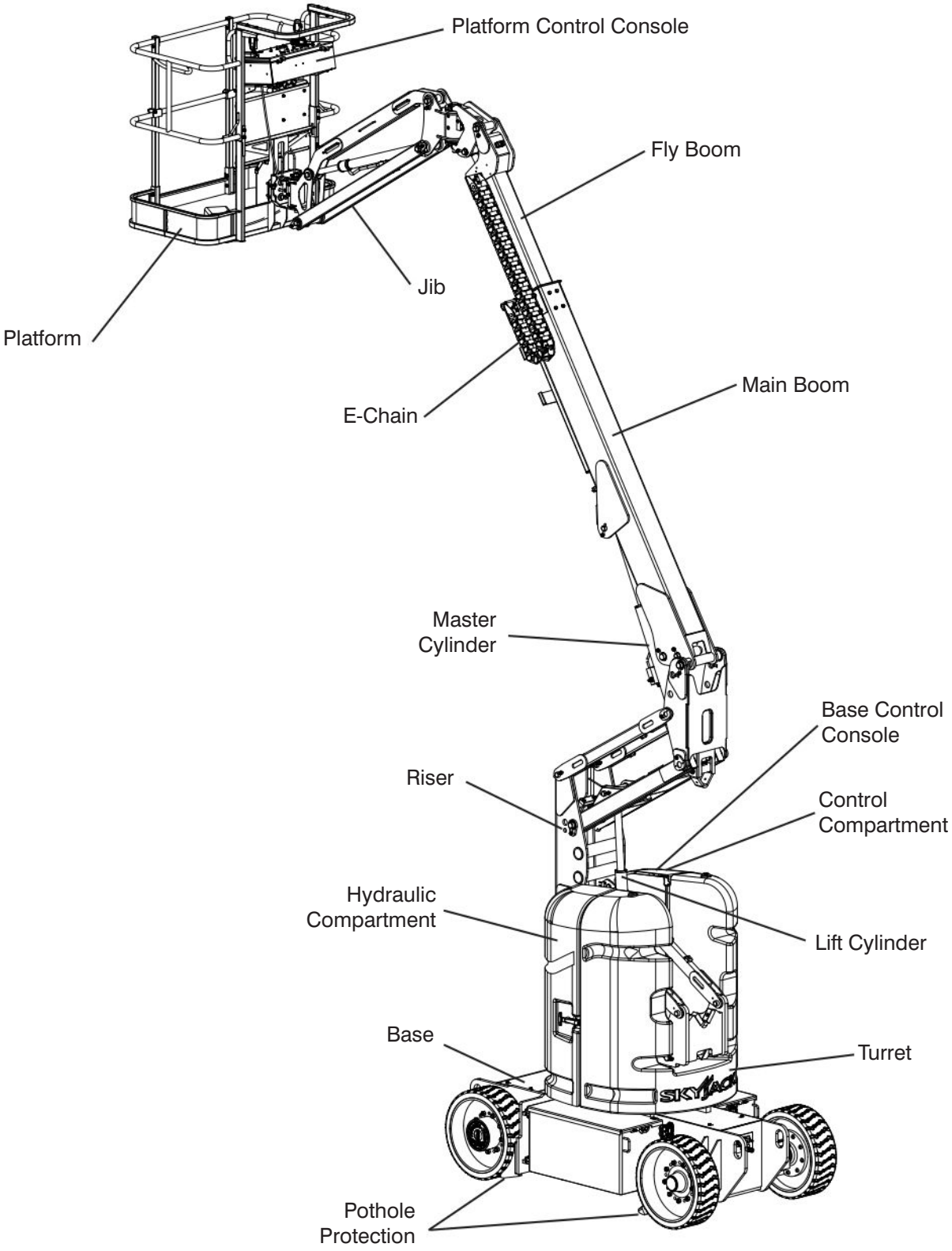
NOTE

Refer to Skyjack's website **www.skyjack.com** for latest service bulletins prior to performing frequent or yearly inspections.

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 4.7 for recommended maintenance and inspection areas and intervals. A record of annual inspection is kept on a label located close to the base control console on the cowling. Refer to Table 4.3 in this manual.

3.2 Major Components



SKYJACK Electric Articulating Boom

3.3 Major Assemblies

The MEWP consists of four major assemblies: the base, turret, boom assembly and platform.

3.3-1 Base

The base is a rigid, one-piece weldment, which supports two swing out battery trays. The rear axle is electrically motor-driven and has spring-applied, electrically released brakes. The front axle is steerable by a hydraulic cylinder.

3.3-2 Turret

The turret rotates 352 degrees. The turret supports two compartments. One compartment contains the pump/motor unit, hydraulic filter, hydraulic tank and emergency pump unit. The other compartment contains the base control console, main manifold, and function valves. The swing drive is located underneath the turret.

3.3-3 Boom Assembly

The boom assembly consists of the riser, telescoping fly and main boom assembly. The riser is mounted on the turret with the main boom, attached to the riser. The riser mechanism uses two double-acting hydraulic cylinders with holding valves to control vertical movement. The ARJE model is equipped with a 49 in. (124 cm) jib, controlled by a double-acting hydraulic cylinder.

3.3-4 Platform

The platform is constructed of a skid-resistant deck surface allowing visibility through the deck and a 43 in. (110 cm) high tubular steel railing system with mid rails and 6 in. (15 cm) toe boards. The platform can be entered through a drop bar, located opposite the control box side. The platform can be rotated in either direction. 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
- Capacity and maximum number of persons
- Maximum manual force
- Maximum wind speed
- System pressure
- Lift pressure
- Platform height
- Drive height
- Machine weight
- Voltage
- Maximum incline
- Year of manufacture
- Model year

3.5 Component Identification (Optional Equipment/Attachments)

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

3.5-1 Work Light (If Equipped)

The work light assembly is mounted on the railings of the platform.

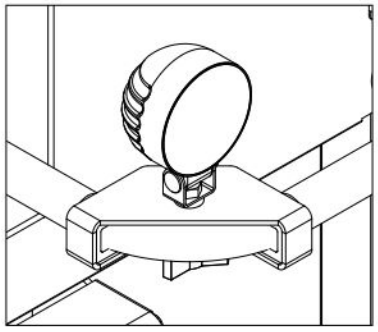


Figure 3-1. Work Light

1. **Work Light** - This light turns on when the work light toggle switch " " on the platform control console is pushed up.

WARNING

Work lights are not intended to replace the ambient lighting required to navigate and operate this MEWP.

3.5-2 Flashing Amber Light (If Equipped)

The flashing amber light is located on top of the turret of the MEWP. This light flashes when any boom function is activated. This works in conjunction with the all motion alarm.

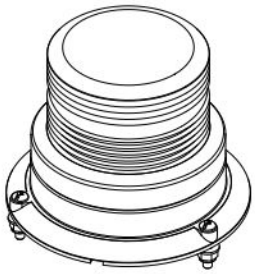


Figure 3-2. Flashing Amber Light

NOTE

The combined weight of attachment, panels, occupants and tools should not exceed platform rated capacity.

3.5-3 All Motion Alarm (If Equipped)

This alarm produces an audible sound when the footswitch is activated. On MEWPs with certain options, a flashing amber light will accompany this alarm.

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

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

Scheduled maintenance inspections shall only be performed by a qualified/competent person.

3.7 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. Jobsite inspection
   It is the responsibility of the operator to perform a jobsite 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
   - 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.**
- **has been tagged or locked out for non-use or repair.**

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

3.7-1 To Activate Base Control Console

NOTE

While operating the emergency power unit, the base controls will override the platform controls, even when the emergency stop button on the platform is depressed.

1. On both the left and right sides of the MEWP, plug in main power connectors.

WARNING

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

2. Enter platform and close gate.
3. On platform control console, pull out "" emergency stop button.
4. Exit platform.
5. On base control console, turn base/off/platform key switch to "" base position.
6. Pull out "" emergency stop button.

3.7-2 To Rotate Platform Using Base Control Console

1. Activate and hold function enable switch "" by pushing it to the right/left.
2. Push platform rotation switch to either "" left or "" right position. Release switch to stop.

3.7-3 To Rotate Turret Using Base Control Console

WARNING

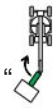
When rotating the turret, ensure that there are no personnel or obstructions in the path of rotation, including blind spots.

1. Activate and hold function enable switch "⚡" by pushing it to the right/left.
2. Push turret rotation switch to either "" clockwise or "" counterclockwise position. Release switch to stop.

3.7-4 To Move Jib Up and Down Using Base Control Console

1. Activate and hold function enable switch "⚡" by pushing it to the right/left.
2. Push jib up/down switch to either "" up or "" down position. Release switch to stop.

3.7-5 To Rotate Jib Using Base Control Console

1. Activate and hold function enable switch "⚡" by pushing it to the right/left.
2. Push jib rotation switch to either "" left or "" right position. Release switch to stop.

3.7-6 To Move Riser Up and Down Using Base Control Console

1. Activate and hold function enable switch "⚡" by pushing it to the right/left.
2. Push riser up/down switch to either "" up or "" down position. Release switch to stop.

3.7-7 To Raise or Lower Main Boom Using Base Control Console

1. Activate and hold function enable switch "⚡" by pushing it to the right/left.
2. Push boom raise/lower switch to either "" raise or "" lower position. Release switch to stop.

3.7-8 To Extend or Retract Fly Boom Using Base Control Console

1. Activate and hold function enable switch "⚡" by pushing it to the right/left.
2. Push extend/retract switch to either "" extend or "" retract position. Release switch to stop.

3.7-9 To Level Platform Manually Using Base Control Console

1. Activate and hold function enable switch "⚡" by pushing it to the right/left.
2. Push platform leveling override switch to either "" up or "" down position. Release switch to stop.

3.7-10 To Operate Using Emergency Power Switch at Base Control Console

This is a momentary-type switch. This switch allows all functions except the drive functions to operate in the event of an emergency or an electrical system failure. Refer to Section 2.6 for the emergency lowering procedure.

NOTE

The emergency power unit has two-minute duty cycle.

CAUTION

Do not use emergency power unit continuously for more than two minutes.

3.7-11 To Activate Platform Control Console

1. On both the left and right sides of the MEWP, plug in main power connectors.
2. On base control console, turn base/off/platform key switch to "" platform position.
3. On base control console, pull out "" emergency stop button.

WARNING

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

WARNING

DO NOT operate any control on operator's control console without proper fall protection secured to the designated location in the platform. Failure to avoid this hazard could result in death or serious injury.

4. Enter platform.
5. Attach body harness lanyards of each occupant to fall protection anchorage points. Rated for one (1) person per anchorage.
6. On platform control console, pull out "" emergency stop button.

WARNING

DO NOT drive or steer the MEWP when the platform position does not allow you a clear view of the base. Your area of operation should be cordoned from other personnel or equipment.

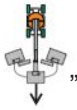
3.7-12 Secondary Guarding Electrical (SGE)

1. When pressure is applied to the sensor bar for less than 1 second, the audible/visual alarm will activate while the bar is being pressed, interrupting all functions. The audible/visual alarm will turn off after the sensor bar is released, and functions will resume.
2. When pressure is applied to the sensor bar for more than 1 second, the audible/visual alarm will activate. All functions will be halted and the reset button will illuminate.
3. After removing pressure from the bar, press the reset button to shut off the audible/visual alarm and resume all functions.

3.7-13 To Drive Forward or Reverse

NOTE

The general direction of the turret and boom relative to the chassis indicates the forward direction of motion.

1. Depress and hold footswitch.
2. On platform control console, move and hold drive/steer controller in this direction "" to drive forward or "" to drive backward.
3. Release controller handle to stop.

CAUTION

The drive orientation can change when the turret is swung 90 degrees off center of the normal driving position (roughly when boom is swung past the rear tire). Drive re-orientation will not occur while driving and rotating until the joystick is released for 6 seconds or when the footswitch is released.

CAUTION

When driving on a slope:

- **DO NOT exceed the rated gradeability listed in Table 4.2a.**

CAUTION

The forward direction of travel will be in the general direction the counterweight is facing while reverse will be the opposite. Care should be taken to confirm the counterweight orientation prior to activating any drive/steer functions.

3.7-14 To Steer

1. Depress and hold footswitch.
2. On platform control console, press rocker on top of drive/steer controller in this direction "  " to steer left or "  " to steer right.

NOTE

Driving and steering may be active at the same time.

3.7-15 To Move Jib Up and Down Using Platform Control Console

1. Depress and hold footswitch.
2. On jib up/down switch, select "  " to move jib up or "  " to move jib down. Release switch to stop.

3.7-16 To Rotate Jib Using Platform Control Console

1. Depress and hold footswitch.
2. On jib rotation switch, select "  " to rotate jib left or "  " to rotate jib right. Release switch to stop.

3.7-17 To Move Riser Up and Down Using Platform Control Console

1. Depress and hold footswitch.
2. On riser up/down switch, select "  " to move riser up or "  " to move riser down. Release switch to stop.

3.7-18 To Extend or Retract Fly Boom Using Platform Control Console

1. Depress and hold footswitch.
2. On boom extend/retract switch, select "  " to extend fly boom or "  " to retract fly boom. Release switch to stop.

3.7-19 To Rotate Platform Using Platform Control Console

1. Depress and hold footswitch.
2. On platform rotation switch, select "  " to rotate platform left or "  " to rotate platform right.

3.7-20 To Level Platform Manually Using Platform Control Console

1. Depress and hold footswitch.
2. On platform leveling override switch, select "  " up position to tilt platform up or "  " down position to tilt platform down.

3.7-21 To Raise or Lower Main Boom Using Platform Control Console

1. Depress and hold footswitch.
2. Push and hold boom/turret controller in this direction "" to raise main boom or "" to lower main boom.
3. Release controller handle to stop.

3.7-22 To Sound Horn

1. Press "" horn pushbutton to sound horn. Release pushbutton to stop sounding horn.

3.7-23 To Rotate Turret Using Platform Control Console

WARNING

When rotating the turret, ensure that there are no personnel or obstructions in the path of rotation, including blind spots.

1. Depress and hold footswitch.
2. Push and hold boom/turret controller in this direction "" to rotate clockwise or "" to rotate counterclockwise.
3. Release controller handle to stop.

3.7-24 To Operate Using Emergency Power Switch at Platform Control Console

This is a momentary-type switch. This switch allows all functions except drive function to operate in the event of an emergency or an electrical system failure. Refer to Section 2.6 for the emergency lowering procedure.

NOTE

The emergency power unit has two-minute duty cycle.

CAUTION

Do not use emergency power unit continuously for more than two minutes.

3.7-25 Shutdown Procedure

1. Completely retract boom and lower platform.

WARNING

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

2. Push in "" emergency stop button on platform control console and on base control console.
3. Turn base/off/platform key switch to "" off position. Remove key.
4. On either the left or right side of the MEWP, disconnect and lock out main power connector.

3.8 Loading/Unloading

Know and heed all national, state/provincial and local rules which apply to transporting 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 or unloaded.

3.8-1 Loading and Tie-down

1. Turn key switch to "○" off position and remove key before transporting.
2. On either the left or right side of the MEWP, disconnect and lock out main power connector.
3. Chock MEWP wheels (if necessary).
4. Remove all loose items.
5. Anchor down MEWP to transport surface using tie-down points (refer to Figure 3-3).
6. Secure boom from side-to-side movement using lower platform mount between boom end and platform. Do not use excessive downward force when securing boom section.
7. Place block underneath platform rotator and gently lower rotator onto block and secure in place. Strap must be secured underneath hoses and cables to avoid damage to MEWP (refer to Figure 3- 4). Do not use excessive downward force when securing platform.

⚠ WARNING

Inspect MEWP for loose or unsecured items.

NOTE

For loading and unloading using a winch line, refer to Section 2.5.

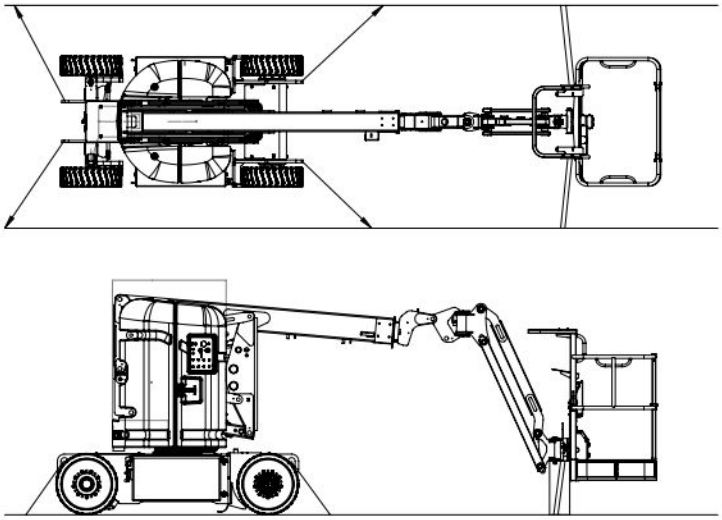


Figure 3-3. Tie-down Points

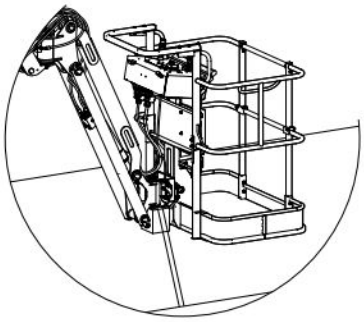


Figure 3-4. Platform Tie-down

3.8-2 Lifting

1. Place boom in stowed position centered between drive wheels.

2. On either the left or right side of the MEWP, disconnect and lock out main power connector.

3. Clear platform of all personnel, tools and materials.

WARNING

When lifting the MEWP, lifting devices must be attached to designated lift points only (refer to Figure 3-5).

WARNING

Use chains of ample load capacity sufficient to withstand MEWP weight. Refer to the serial plate of the MEWP for specific weight.

4. Properly adjust rigging to ensure MEWP remains level during lifting. See Center of gravity location (Figure 3-5).

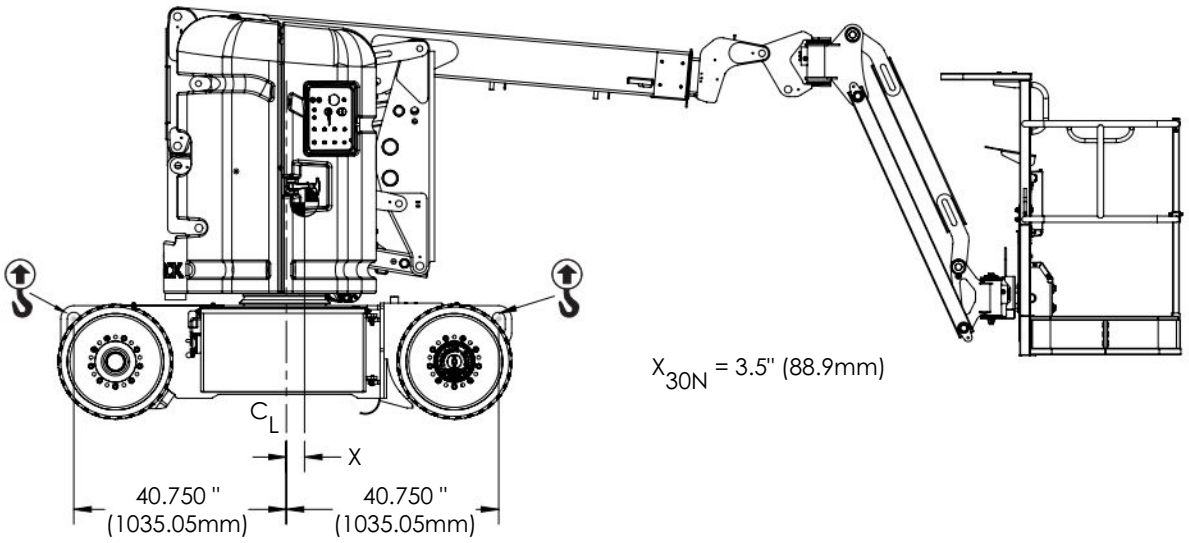


Figure 3-5. Lifting Points/Center of Gravity
NOTE: Center of gravity varies with different options.

3.9 Chassis Tilt

This section guides the operator on how to recover from an inclined position.

IMPORTANT

When the boom is raised or extended, the MEWP must only be operated on firm, level surfaces.

WARNING

When tilt settings are exceeded, causing the alarm to sound and the light to illuminate, the platform should be lowered and retracted immediately.

NOTE

- If the MEWP becomes tilted while elevated, causing the alarm to sound and the light to illuminate, drive functions will be disabled.

- If the MEWP is tilted while in the lowered travel position, movement of the fly boom extend, riser up, or main boom into the elevated position will be stopped at the limits of the lowered travel position. The alarm will sound and the light will illuminate. Further fly boom extension, riser up, or main boom rising will be disabled.

- Resetting power to the controls (e.g. e-stop depressed then pulled out) when the MEWP is tilted and at the limits of the lowered travel position will cause the MEWP to be considered tilted while elevated.

3.9-1 Platform Uphill

If the MEWP becomes tilted with the platform uphill (refer to Figure 3-6) follow the steps below to return to a lowered and retracted position.

1. Lower main boom completely.
2. Lower riser completely.
3. Retract fly boom completely.
4. Drive to a firm, level surface.

3.9-2 Platform Downhill

If the MEWP becomes tilted with the platform downhill (refer to Figure 3-7) follow the steps below to return to a lowered and retracted position.

1. Retract fly boom completely.
2. Lower riser completely.
3. Lower main boom completely.
4. Drive to a firm, level surface.

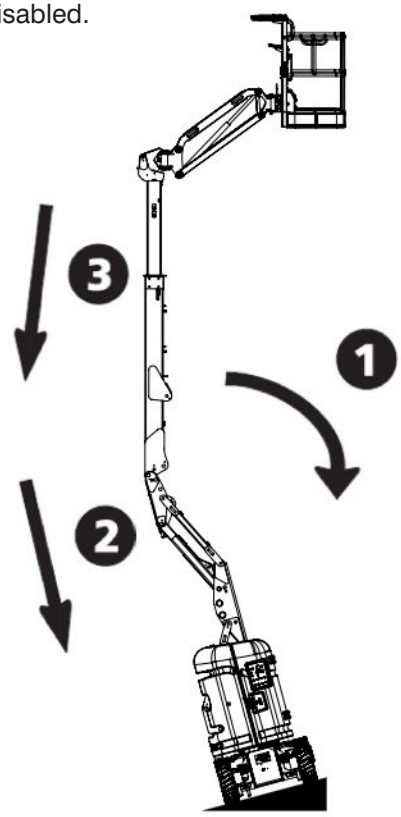


Figure 3-6. Platform Uphill

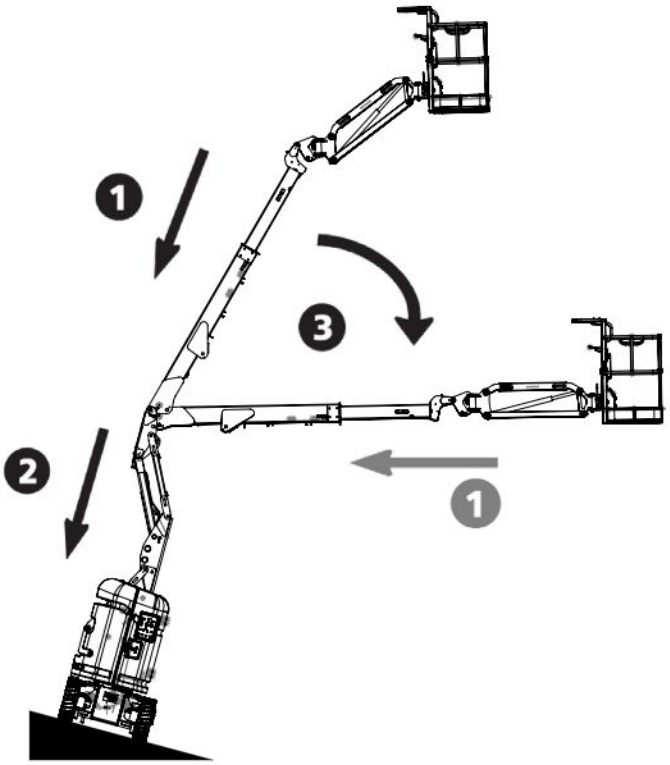


Figure 3-7. Platform Downhill

3.10a Battery Maintenance

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

3.10a-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. On either the left or right side of the MEWP, disconnect and lock out main power connector.
2. Check battery case for damage.
3. Check battery fluid level in each battery. If plates are not covered by at least 13 mm (1/2") 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.

3.10a-2 Battery Charging Operation

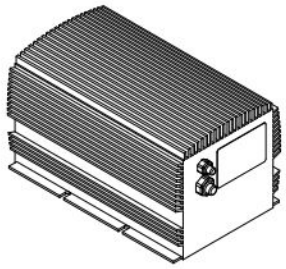


Figure 3-8. Battery Charger

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

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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 for and remove 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.

3.10b 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.

3.10b-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.

3.10b-2 Charging the battery

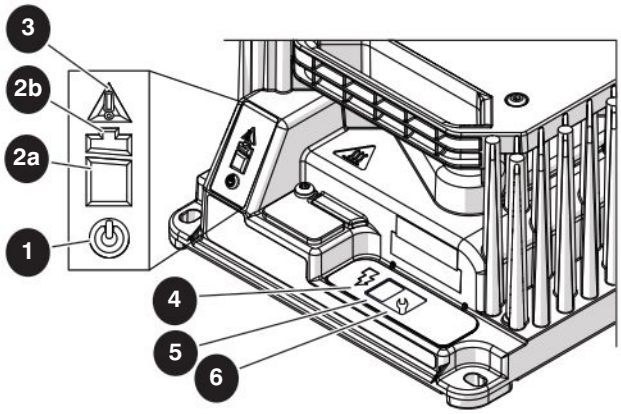


Figure 3-9. Battery Charger

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.

3.11 Technical Diagrams

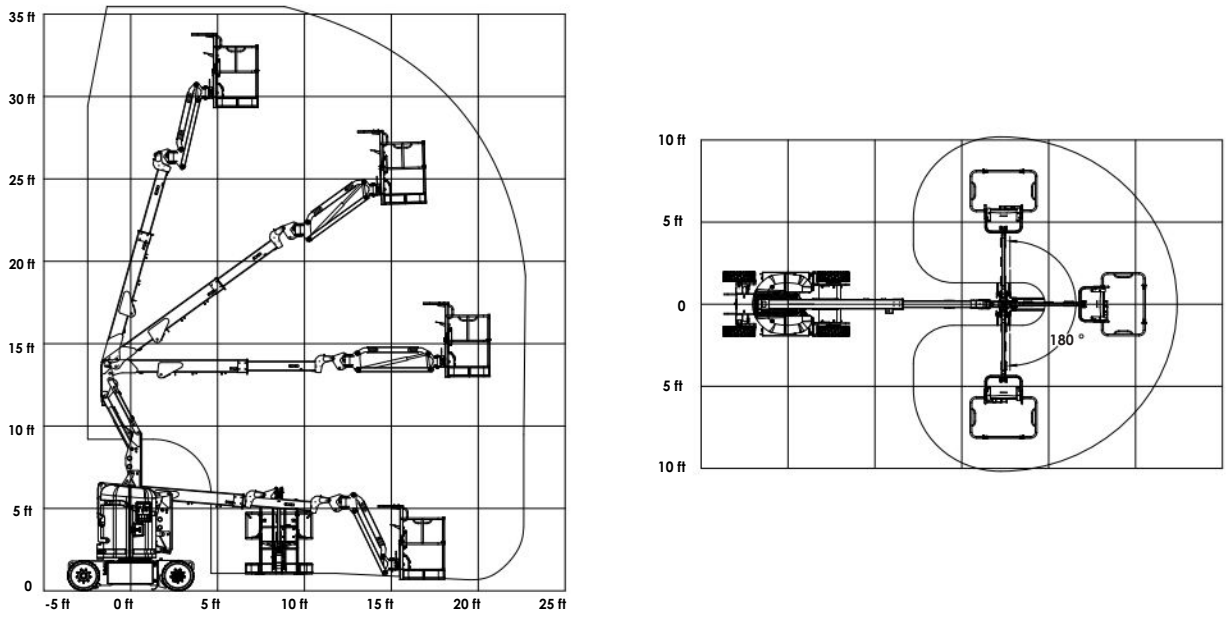


Figure 3-10. Reach Diagram - SJ30ARJE

3.11 Technical Diagrams Continued

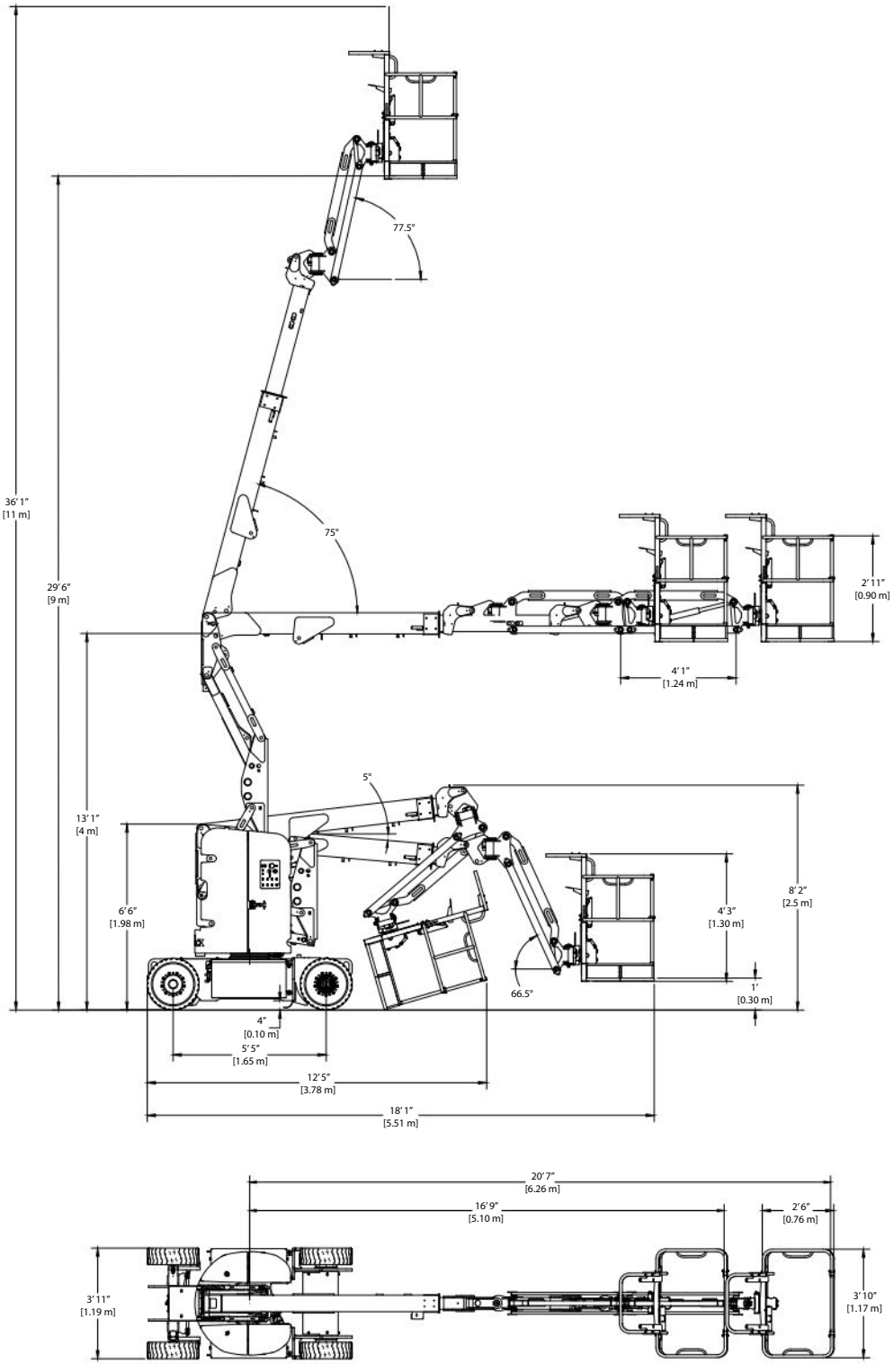


Figure 3-11. Dimensions - SJ30ARJE

Notes

Table 4.1 Standard and Optional Features

MODEL	SJ30ARJE
STANDARD EQUIPMENT	
24-Volt DC emergency power	✓
4-foot jib	✓
Base controls	✓
Platform controls	✓
Continuous drive and steer directional sensing	✓
Four-wheel drive	✓
Manual brake release	✓
Operator horn	✓
117 x 76 cm platform (drop bar)	✓
Spring-applied hydraulically released brake	✓
Variable speed drive and function controls	✓
Pothole protection device	✓
Hourmeter	✓
Fall protection anchorage(s)	✓
Battery warning light	✓
Solid rubber, non-marking tires	✓
SGE	✓
AC outlet on platform	✓
OPTIONAL EQUIPMENT	
Air line to platform	✓
117 x 76 cm platform (swing gate)	✓
All motion alarm	✓
Flashing amber light	✓
Platform work light	✓
Bio oil	✓
Tool tray	✓
Pipe rack	✓
Control box cover	✓

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Table 4.2a Specifications and Features

MODEL		SJ30ARJE
Platform Size	Total platform length (outside)	117 cm
	Total platform depth (outside)	76 cm
Height	Working	11 m
	Platform elevated	9 m
	Drive	Driveable at all heights
	Stowed	1.98 m
Overall length		5.51 m
Overall width		1.19 m
Weight		5750 kg
Platform rotation		180 degrees
Horizontal reach		4.96 m
Horizontal reach @ maximum height		6.26 m
Wheelbase		1.65 m
Turret rotation		352 degrees
Turret tailswing		0 m
Gradeability		35%
Ground clearance (chassis)		0.01 m
Turning Radius	Inside (left - right)	1.53 m - 1.65 m
	Outside (left - right)	3.21 m - 3.32 m
Battery Voltage		48V DC
Battery Type		Lead/Acid
Operating Times	Main boom up	20 - 24 seconds (approx.)
	Main boom down	18 - 20 seconds (approx.)
	Riser boom up	14 - 18 seconds (approx.)
	Riser boom down	22 - 26 seconds (approx.)
	Fly boom extend	17 - 19 seconds (approx.)
	Fly boom retract	12 - 16 seconds (approx.)
	Jib up	18 - 20 seconds (approx.)
	Jib down	12 - 16 seconds (approx.)
	Jib swing	14 - 16 seconds (approx.)
	Turret rotate	70 - 90 seconds (approx.)
	Platform rotate	7 - 10 seconds (approx.)
Driving Speeds	Drive speed (maximum-stowed)	4.8 km/h
	Drive speed (maximum-elevated)	0.6 km/h
Emission sound pressure level at platform does not exceed 76dB(A).		
Vibration - acceleration to which operator's body is subjected does not exceed 0.5 m/sec^2.		

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Table 4.2b Specifications and Features

MODEL				SJ30ARJE
Hydraulic Oil	Recommended Oil	Type		Shell Tellus T46
		Operating and Oil Temperature Limits	Ambient Operation	+45°C
			Max. Oil Temp.	+93°C
	Approved Alternates			Chevron Rykon MV
				Mobilfluid 424
				Esso Univis N46
	Hydraulic Tank Capacity			16.2 L

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Table 4.3 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 control compartment cowling. 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 4.4 Tire/Wheel Specifications

	SJ30ARJE
Tire Size	559 mm x 178 mm
Type	Solid Rubber
Wheel Nuts Torque	244 Nm

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Table 4.5 Maximum Platform Capacities

	SJ30ARJE	
	INDOOR	OUTDOOR
Total Capacity	227 kg	
	2 Persons	1 Person
Maximum Wind	0 m/s	12.5 m/s
Maximum Side Force	400 N	200 N

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Table 4.6 Floor Loading Pressure

MODEL	Gross Aerial Platform Weight	Floor Loading Pressure (No Load)			Floor Loading Pressure (Maximum with Load)		
		Wheel	LCP	OUP	Wheel	LCP	OUP
	kg	kg	kPa	kPa	kg	kPa	kPa
SJ30ARJE	5,977	1,590	954	21.4	3,255	1,505	22.2

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- Gross Aerial Platform Weight = Weight + platform capacity
- LCP – Locally Concentrated Pressure – is a measure of how hard the aerial platform tire tread presses on the area in direct contact with the floor. The floor covering (tile, carpet, etc.) must be able to withstand more than the indicated values above.
- OUP – Overall Uniform Pressure – is a measure of the average load the aerial platform imparts on the whole surface projected 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.

Locally Concentrated Pressure (LCP):

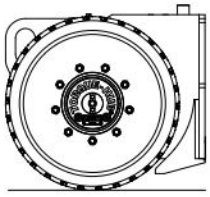
Foot Print Area identified by test.

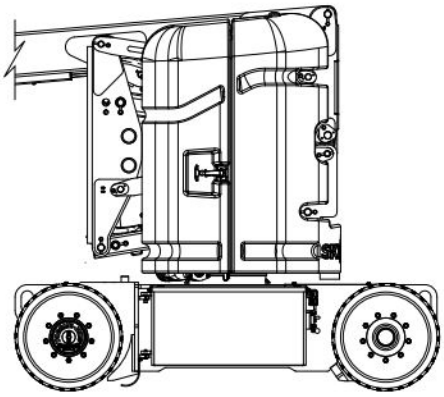
$$LCP = \frac{\text{Wheel Load}}{\text{Foot Print Area}}$$

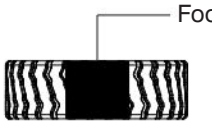
Overall Uniform Pressure (OUP):

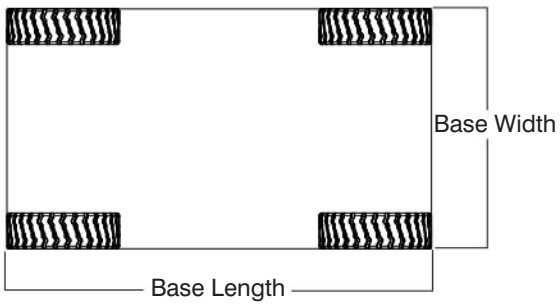
Base Area = Length x Width

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









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 4.7 Operator's Daily Inspection Checklist

OPERATOR'S DAILY INSPECTION 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

	NA	P	F	R
Visual and Daily Maintenance Inspections				
Labels				
Electrical				
Limit Switches				
Hydraulic				
Control Compartment				
Base Control Console				
Main Manifold				
Motor/Hydraulic Compartment				
Hydraulic Filter				
Hydraulic Tank				
Hydraulic Pump/Motor				
Hydraulic Oil				
Emergency Power Unit				
Turret Rotation Motor/Gear				
Base				
Main Power Connectors				
Torque Hubs				
Steer Cylinder Assembly				
Tie Rod				
Wheel/Tire Assembly				
Battery Trays				
Battery Charger				
Batteries				
Pothole Protection				
Electrical Panel				
Manuals				
Platform Assembly				
Platform Control Console				
Rotary Actuator				
Jib (Rotating)				
Boom				
Main & Fly Booms				
Riser				
Cylinders				
Wear Pads				
E-Chain				
Optional Equipment/Attachments				
Work Light (If Equipped)				
Flashing Amber Light (If Equipped)				
Pipe Rack (If Equipped)				
Control Box Cover (If Equipped)				
Air Line (If Equipped)				
Function Tests				
Test Main Power Connectors				
Base Control Console				
Test Base Emergency Stop Light				
Test Base Emergency Stop				
Test Function Enable Switch & All Boom Functions				
Test Platform Self-leveling				
Test Emergency Power				
Test Base/Off/Platform Switch				
Platform Control Console				
Test Secondary Guarding Electrical (SGE)				
Test Platform Emergency Stop Light				
Test Platform Emergency Stop				
Test Footswitch				
Test Steering				
Test Driving Function				
Test Driving Speed				
Verify Load Sensing Module Self-Check				
Test Emergency Power				
Test Horn				
Test Brakes				
Test Manual Platform Leveling				

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

Table 4.8 EC Declaration of Conformity

EC Declaration of Conformity

We, SKYJACK INC., declare under our sole responsibility that the product **Mobile Elevating Work Platform**

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

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

Machinery Directive 2006/42/EC
With guidance from Harmonized European Standard EN280:2013 + A1.
Notified body: [*]

EC Type Examination Certificate No: [*]

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

The person authorized to compile the Technical Construction File:
[*]

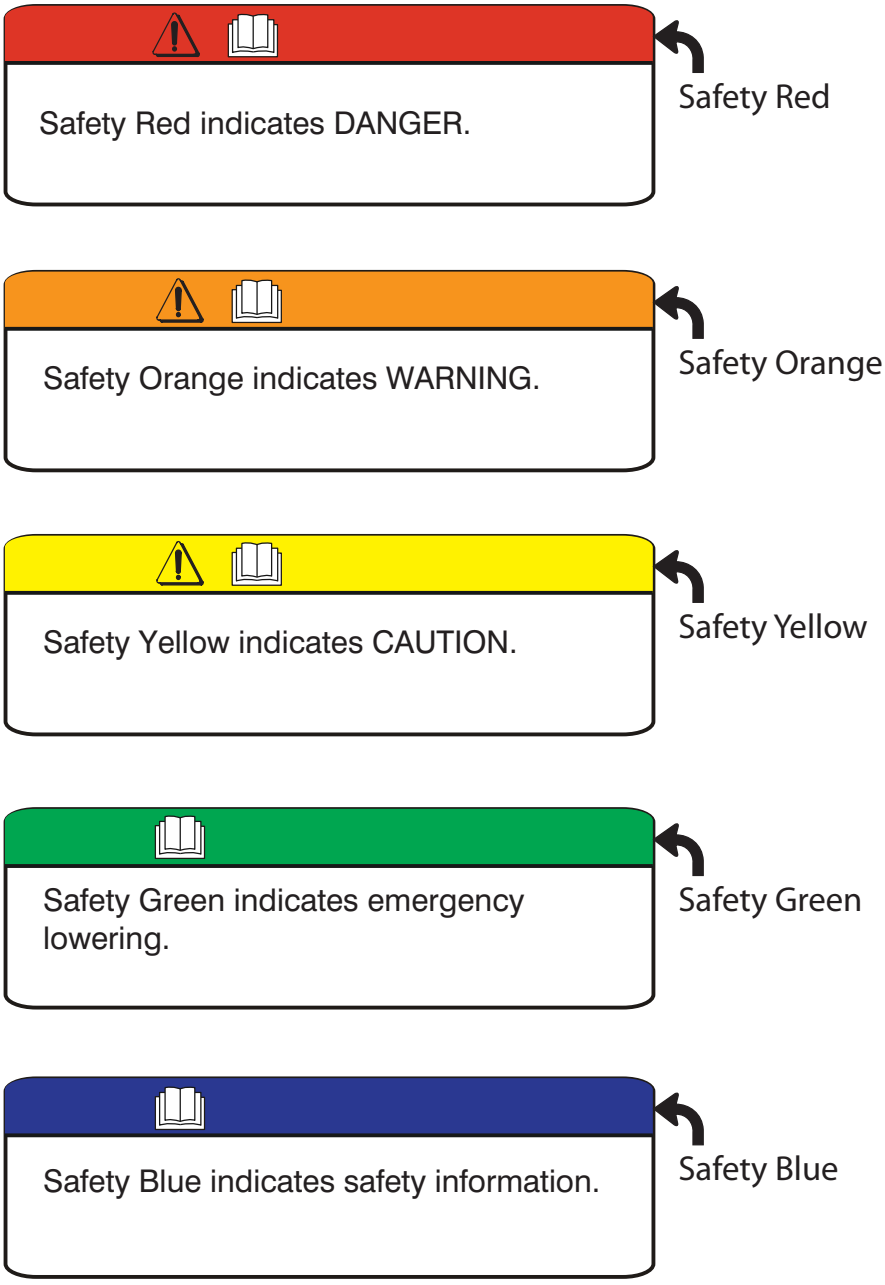
Place of issue:
[*]

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

Test and Validation: Quality:

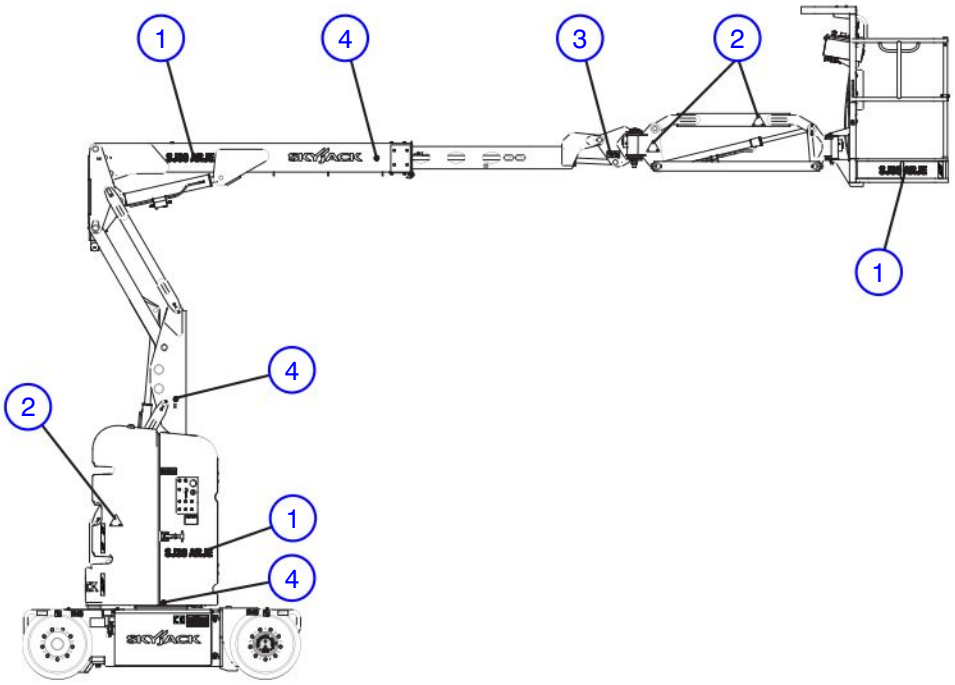
[*] For information refer to the English Declaration of Conformity provided with your MEWP.

Label Legend



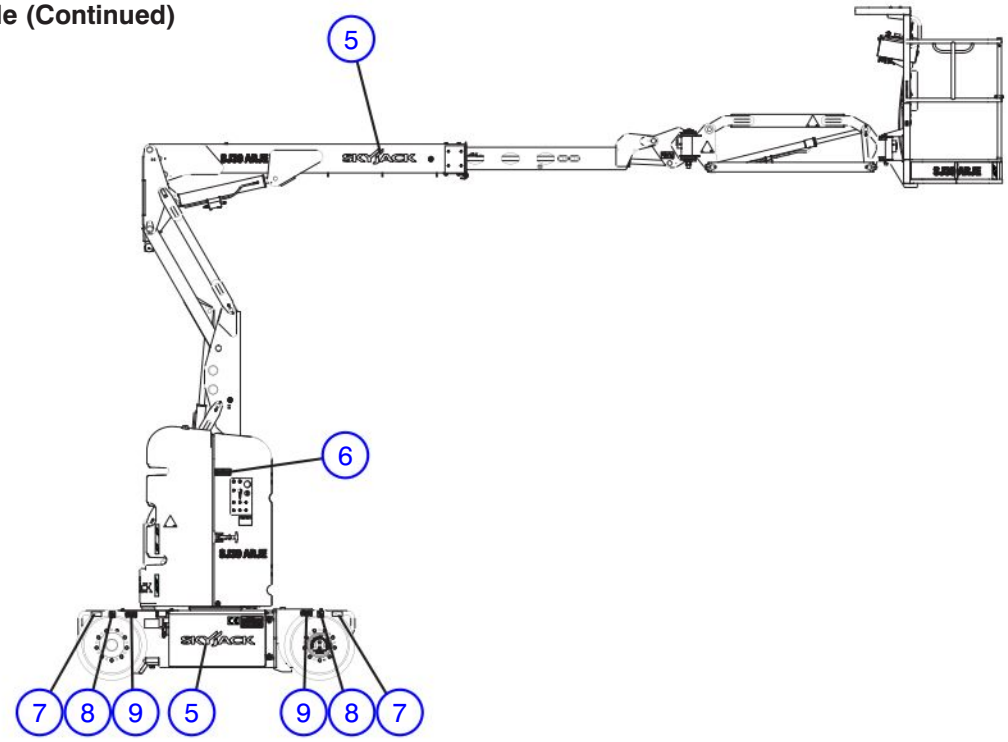
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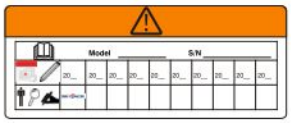
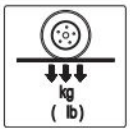
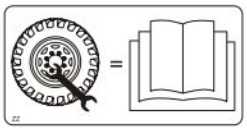
Control Side



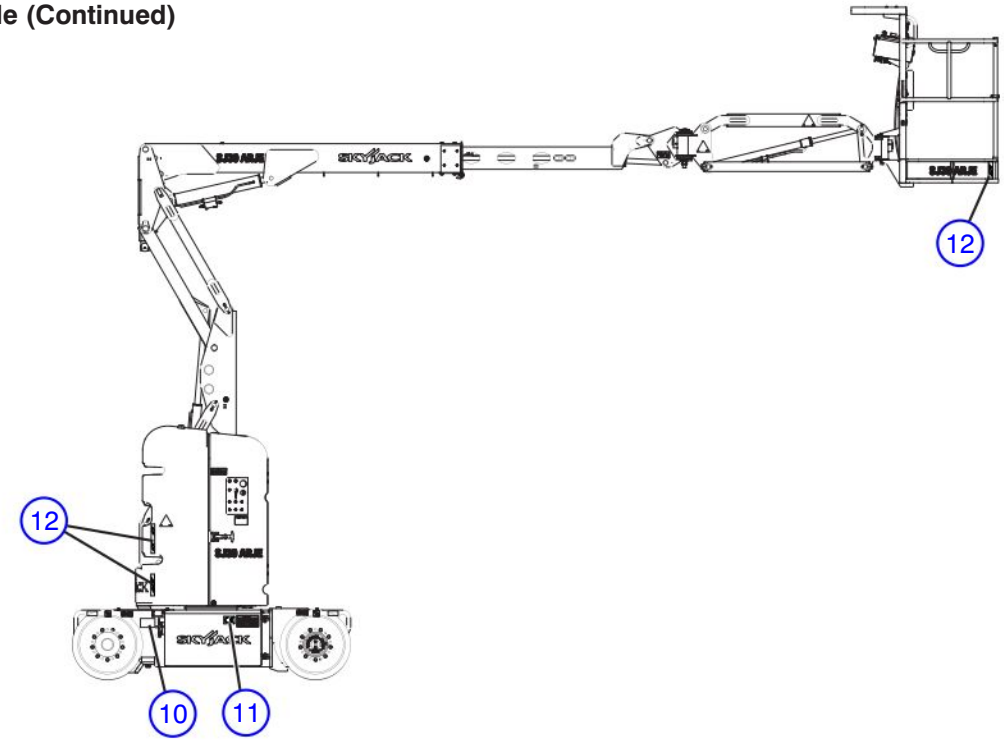
No.	Label Pictorial	Description
1	SJ30 ARJE	**Model Number*** Product Identifier *Model number will vary, may not be as shown.
2		**Body Crushing Hazard** Danger - Body crushing hazard
3		**Crushing Hazard** Danger - Crushing hazard
4		**Warning - Do Not Alter** Do not alter or disable limit switches or other safety devices.

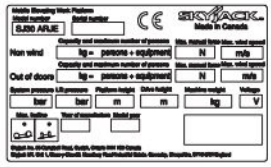
Control Side (Continued)



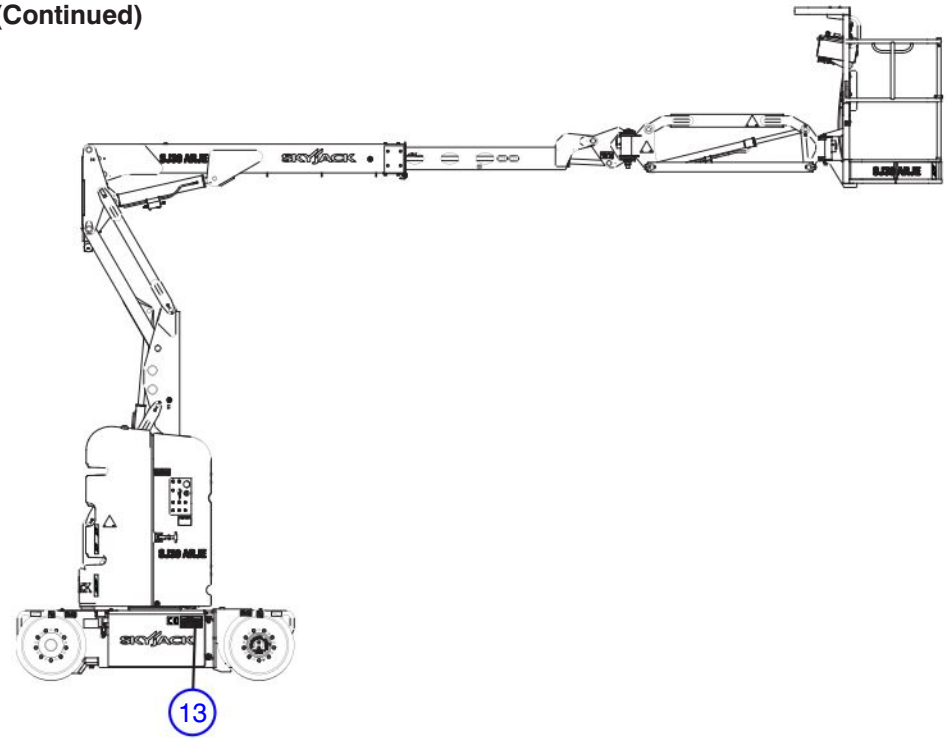
No.	Label Pictorial	Description
5	SKYJACK	**Skyjack Logo** Skyjack
6		**Annual Inspection** Ensure that MEWP has received annual inspection prior to operation.
7		**Lift and Tie Down Points** Only use these points for lifting or tying down.
8		**Wheel Load*** Indicates rated wheel load. *Wheel load will vary over different MEWPs.
9		**Wheel Specifications** Refer to manual for wheel type, offset, pressure and torque.

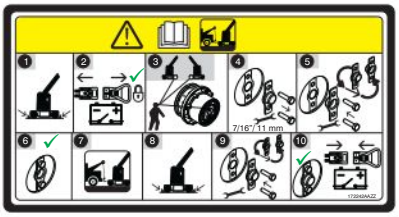
Control Side (Continued)



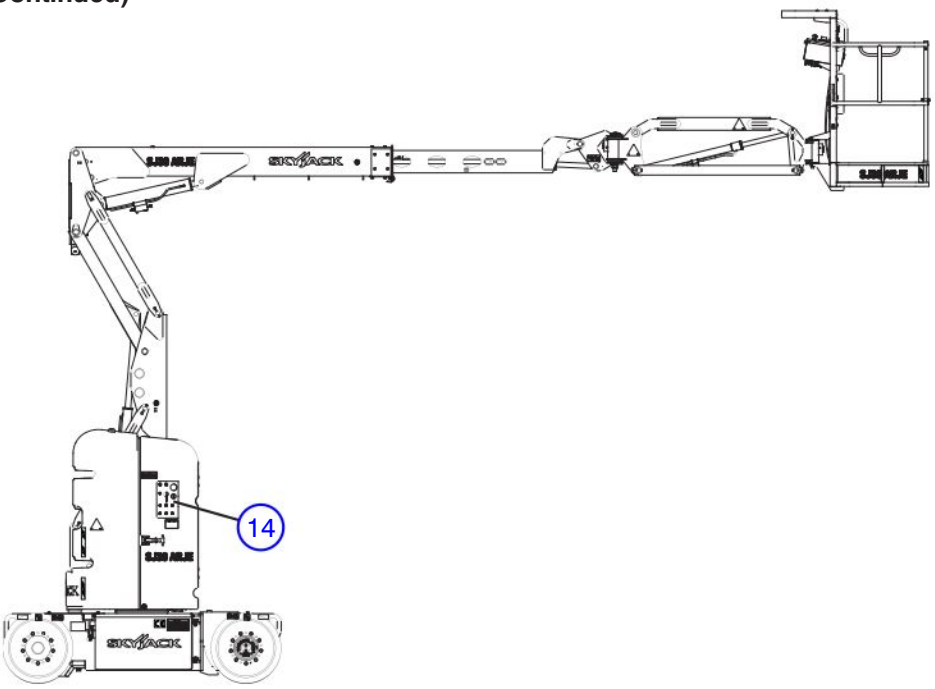
No.	Label Pictorial	Description
10		**Serial Plate*** Product identification and specifications *Serial plates will vary, may not be as shown.
11		**“CE”** CE rating mark
12		**Caution Tape Stripe** Caution stripe

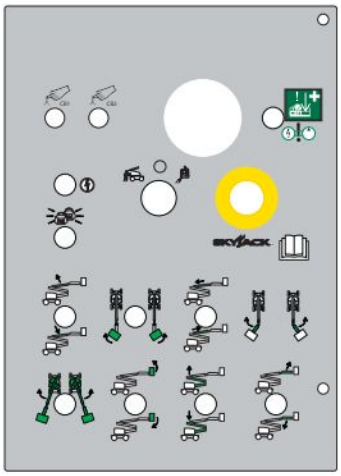
Control Side (Continued)



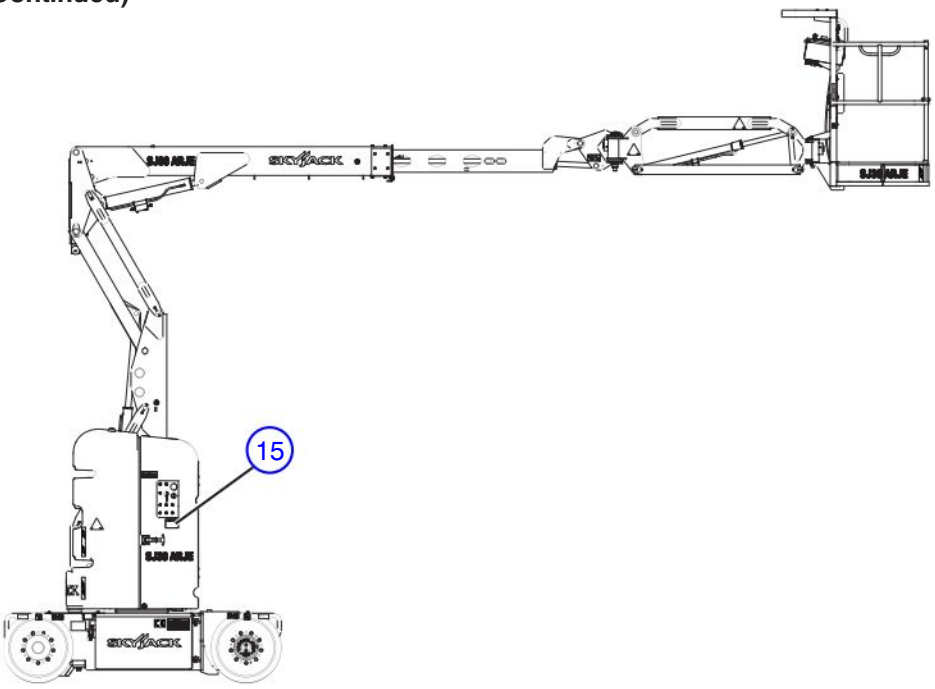
No.	Label Pictorial	Description
13		**Winching & Towing Procedure** Refer to Operating manual. 1. Block or chock wheels to prevent MEWP from rolling. 2. On either the left or right side of the MEWP, disconnect and lock out main power connector. 3. Locate disengage cap on torque-hub at rear of base. 4. Using a 7/16” (11mm) wrench, remove bolts. 5. Remove disengage cap and rotate to inward position. Insert disengage cap and fasten bolts. 6. Brake is now released. 7. Remove blocks/chocks from wheels and winch/tow to desired location. 8. Block or chock wheels to prevent MEWP from rolling. 9. Reengage brake by performing the following steps: • Using a 7/16” (11mm) wrench, remove bolts. • Remove disengage cap and rotate to outward position • Reattach disengage cap and fasten bolts. 10. Brake is now reengaged. On both the left and right sides of the MEWP, plug in main power connectors. **NOTE** Before operation, ensure all blocks/chocks are removed from wheels.

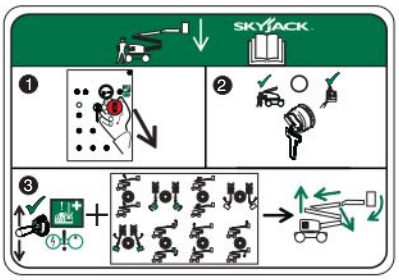
Control Side (Continued)



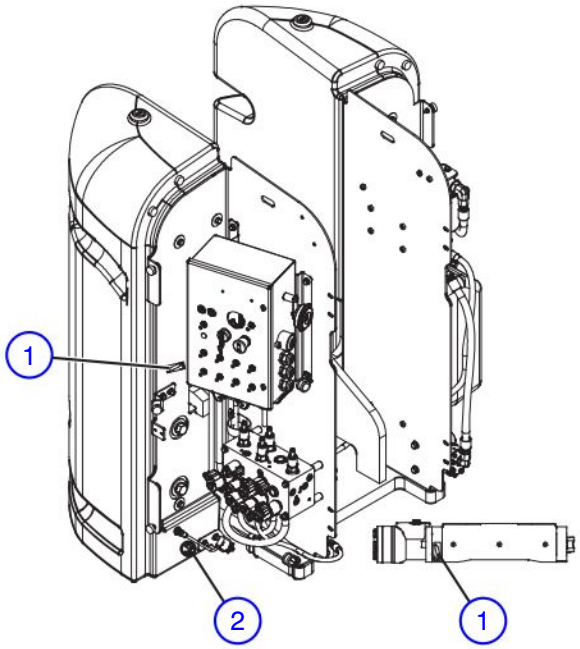
No.	Label Pictorial	Description
14		**Base Control Console** Push and hold "⏻" to enable base control functions. Push "⏚" to reset ground circuit breaker. Push "⚡" to reset power circuit breaker. Read "📖" operating manual. Push and hold "⏻/⚠" to enable the emergency power unit for "⚠" emergency descent. Push "🛑" emergency stop to disable controls. Select "○" to disable controls, "🚜" to enable base control console or "🧍" to enable platform control console. Select "↺" to rotate jib to the left or "↻" to rotate jib to the right. Select "↑" to move jib up or "↓" to move jib down. Select "⟶" to extend fly boom or "⟵" to retract fly boom. Select "⇑" to raise riser or "⇓" to lower riser. Select "↺" to rotate platform to the left or "↻" to rotate to the right. Select "↑" to tilt platform up or "↓" to tilt platform down. Select "↗" to raise main boom or "↘" to lower main boom. Select "↺" to rotate turret to the left or "↻" to rotate to the right.

Control Side (Continued)



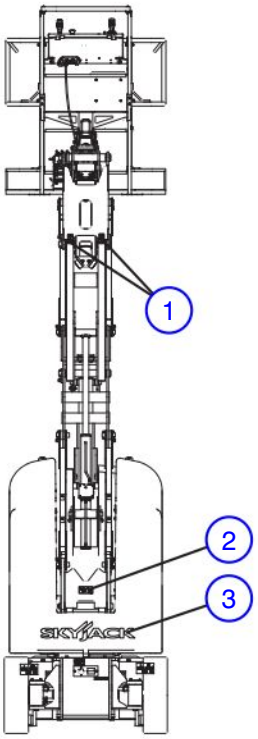
No.	Label Pictorial	Description
15		**Emergency Lowering Procedure** Refer to Operating manual. 1. Pull out "" emergency stop button. 2. Select either "" base position or "" platform position from key switch. 3. Move and hold "" emergency power switch up or down and activate desired boom function.

Control Compartment



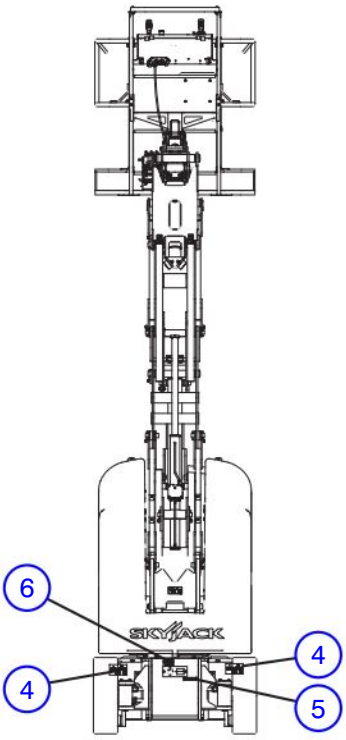
No.	Label Pictorial	Description
1		**Grease Points Maintenance** Refer to service and maintenance manual "📖" for lubricating MEWP.
2		**Warning - Do Not Alter** Do not alter or disable limit switches or other safety devices.

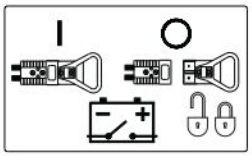
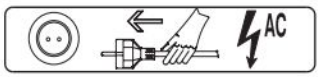
Front Side



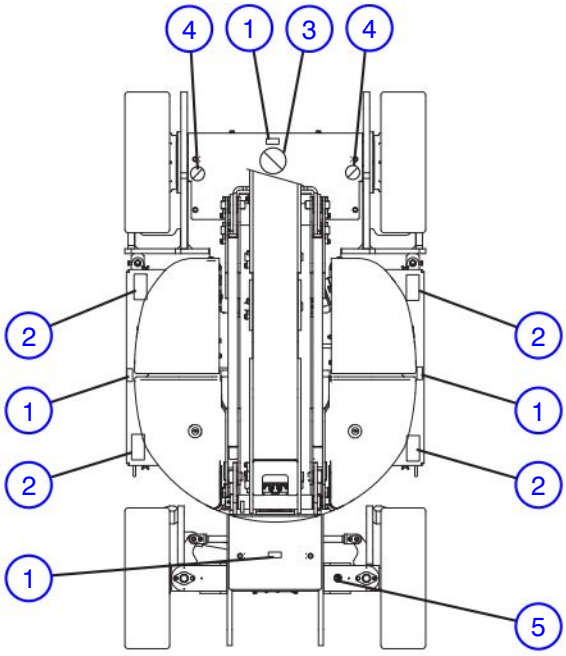
No.	Label Pictorial	Description
1		**Crushing Hazard** Danger - Crushing hazard
2		**Crushing Hazard** Danger - Crushing hazard
3	SKYJACK	**Skyjack Logo** Skyjack

Front Side (Continued)



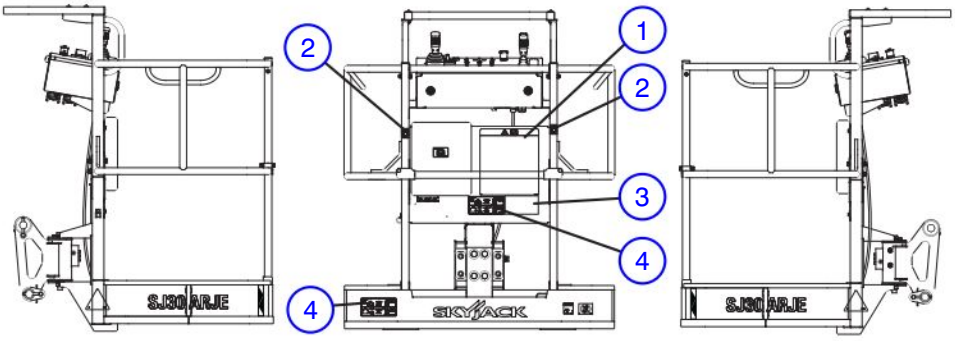
No.	Label Pictorial	Description
4		**Main Power Connector** Disconnect and lock out to disconnect power to all circuits. Plug in to base to operate any circuit.
5		**Connect AC Supply** Connect AC supply here.
6		**Battery Charging Connection** Refer to Operating manual. Connect AC supply here to charge batteries.

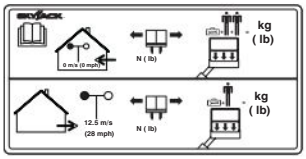
Top View



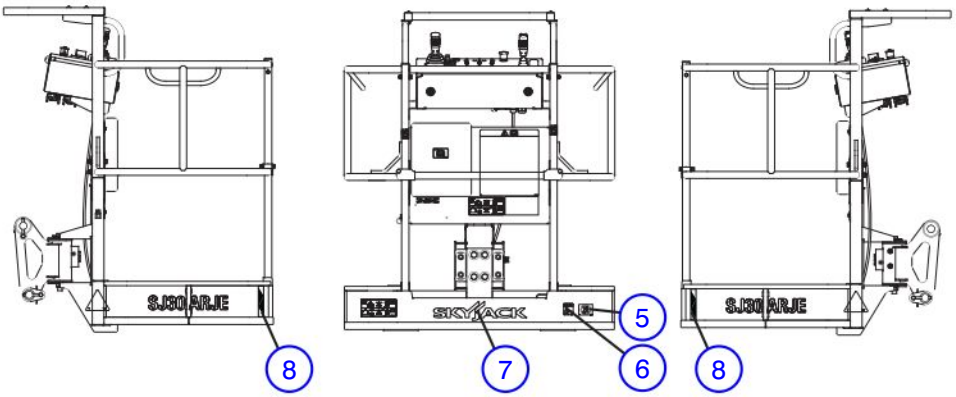
No.	Label Pictorial	Description
1		**Warning - No Step** No step warning
2		**Crushing Hazard** Danger - Crushing hazard
3		**Warning - Electrical Shock** Stay away. High voltage (48V).
4		**Warning - Electrical Shock** Stay away. High voltage.
5		**Warning - Do Not Alter** Do not alter or disable limit switches or other safety devices.

Platform Views



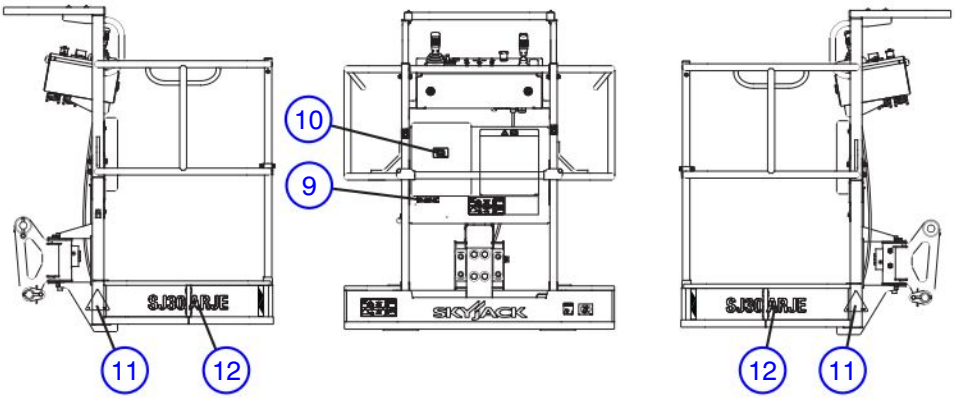
No.	Label Pictorial	Description
1		**Hazard Identification** Refer to Section 1: Safety Rules. Read and understand outlined risks associated with this MEWP prior to operation.
2		**Fall Protection Anchorage** Attach body harness lanyards of each occupant to fall protection anchorage points. Rated for one (1) person per anchorage.
3		**AWPT "Clunk Click!"** Indicates full body harness awareness.
4		**Platform Capacity*** Rated work load when operating on level ground. Rated work load includes the weight of both personnel and material, and maximum number of people in each configuration. Do not exceed total weight or maximum number of people. Load platform uniformly. *Platform capacity will vary over different MEWPs. **Horizontal Load Rating** Apply no more than indicated side load. Operate below indicated wind speed only.

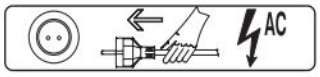
Platform Views (Continued)



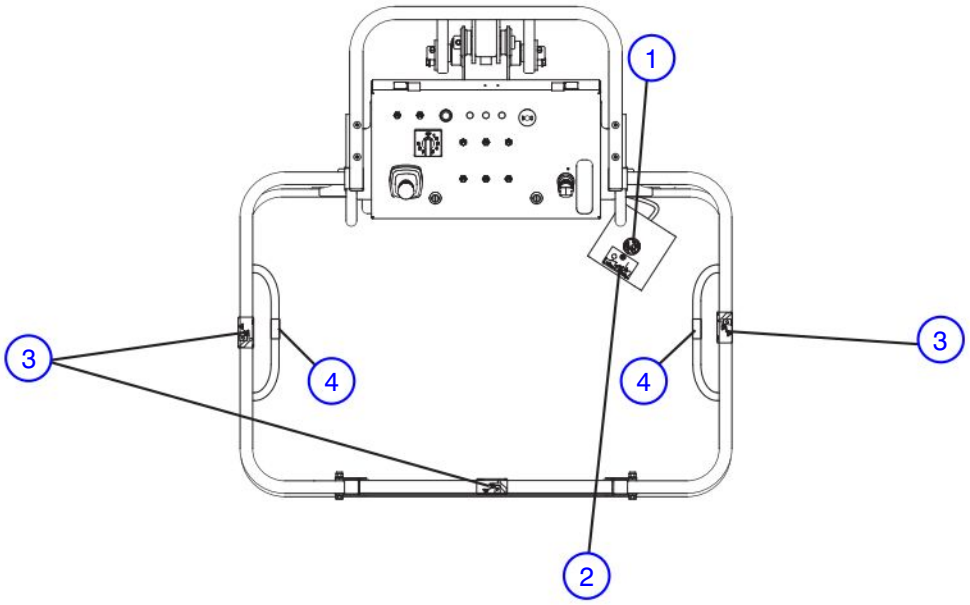
No.	Label Pictorial	Description
5		**No Jewelry** Caution - Do not wear jewelry.
6		**Operator's Daily Inspection.** Refer to the Operating manual. Perform visual inspection and function tests at the beginning of each shift. Refer to Table 4.7 Operator's Daily Inspection Checklist.
7	SKYJACK	**Skyjack Logo** Skyjack
8		**Caution Tape Stripe** Caution stripe

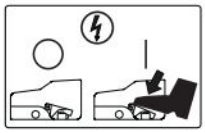
Platform Views (Continued)



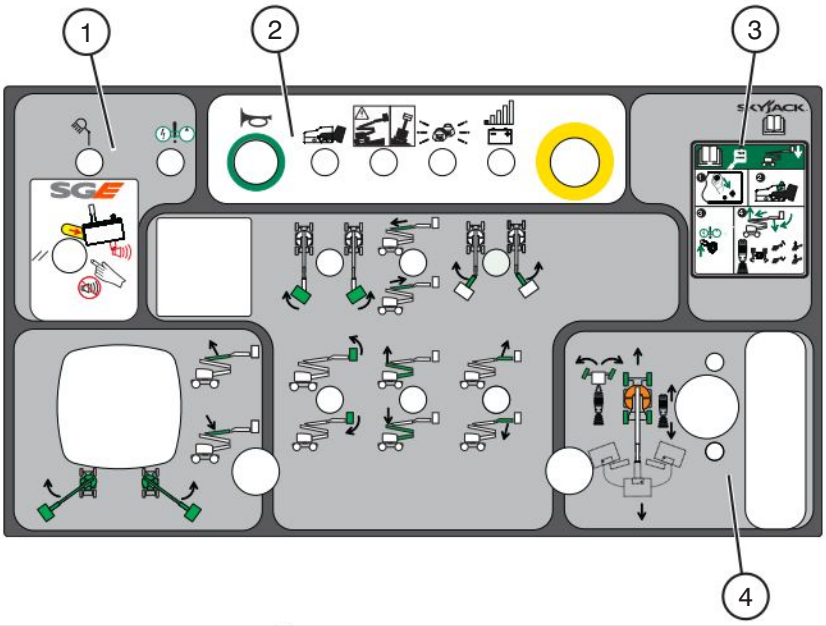
No.	Label Pictorial	Description
9		**Connect AC Supply** Connect AC supply here.
10		**Manual Box** Indicates location of operating manual.
11		**Body Crushing Hazard** Danger - Body crushing hazard
12	SJ30 ARJE	**Model Number*** Product Identifier *Model number will vary, may not be as shown.

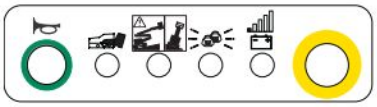
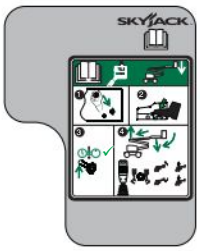
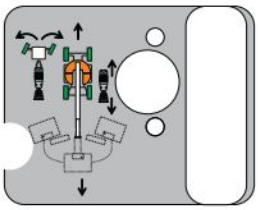
Platform - Top View



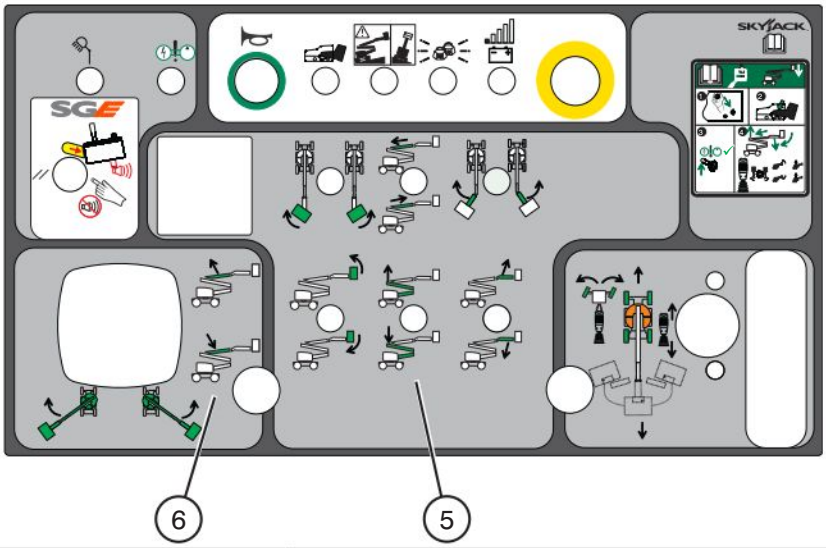
No.	Label Pictorial	Description
1		**Warning - Do Not Alter** Do not alter or disable limit switches or other safety devices.
2		**Footswitch Enable (On/Off)** Depress and hold footswitch to enable platform function.
3		**Crushing Hazard** Danger - Crushing hazard
4		**Warning - No Step** No step warning

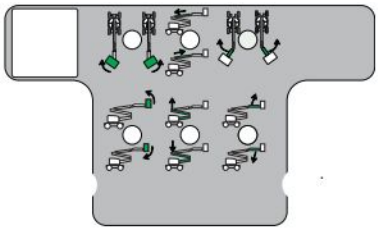
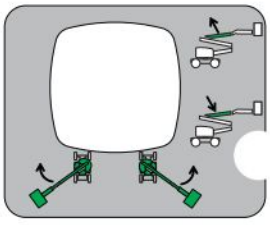
Platform Control Console



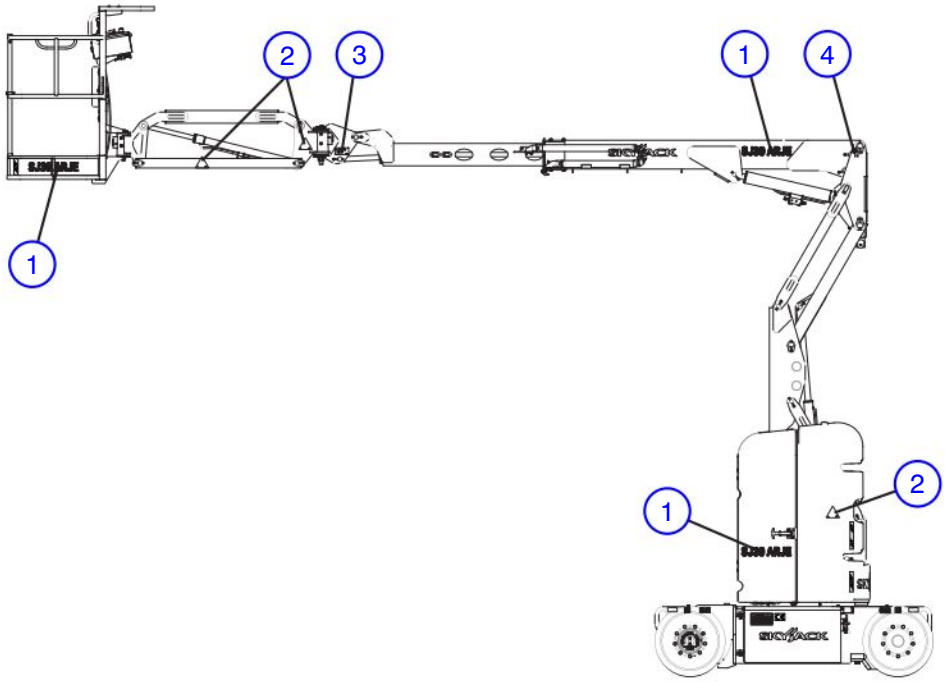
No.	Label Pictorial	Description
1		**Work Light (If Equipped)/Emergency Power Unit/SGE Reset** Select “ ” to enable work light (if equipped). Select “ ” to enable emergency power unit. Select “ ” to reset SGE.
2		**Horn/Emergency Stop** Select “ ” to sound horn. Push “ ” emergency stop to disable controls.
3		**Emergency Lowering Procedure** Refer to Operating manual. 1. Pull out “ ” emergency stop button. 2. Depress and hold footswitch. 3. Move and hold “ ” emergency power switch up and activate desired boom function.
4		**Drive/Steer Controller** Press rocker switch in this direction “ ” to steer left or “ ” to steer right. Push and hold controller in this direction “ ” to drive forward or “ ” to drive backward.

Platform Control Console (Continued)



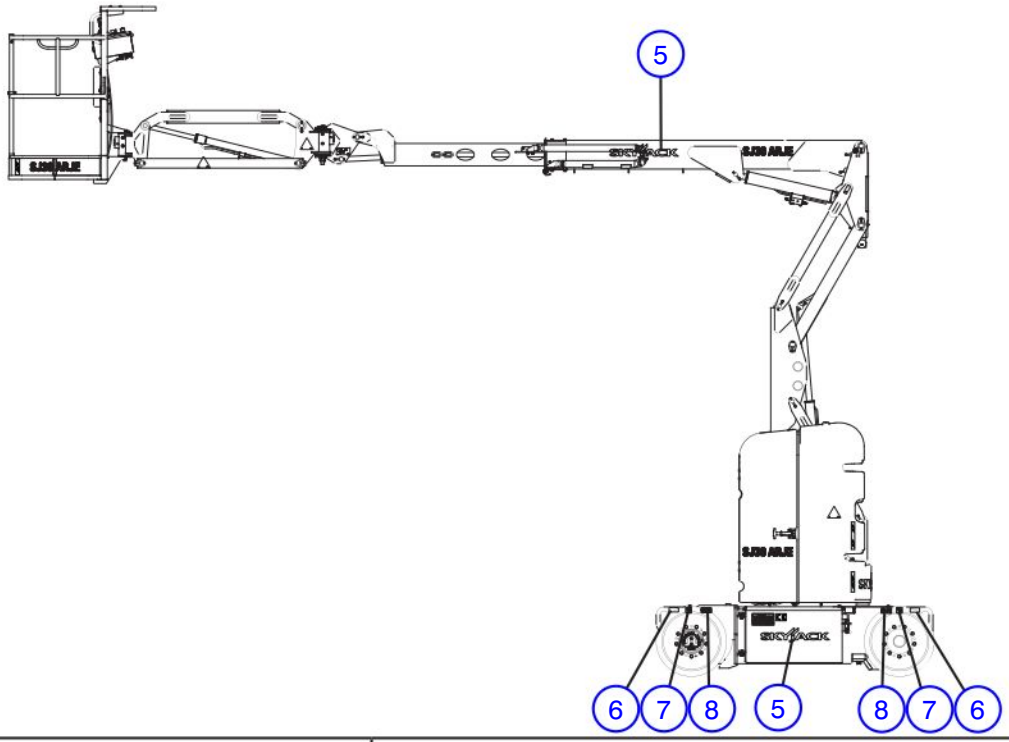
No.	Label Pictorial	Description
5		**Boom Speed Adjuster Dial/Platform/Boom/Jib Controls** Adjust dial “ ” to vary speed of fly boom extension/retraction, jib raising/lowering and platform rotation movements. Select “ ” to rotate platform to the left or “ ” to the right. Select “ ” to extend fly boom or “ ” to retract fly boom. Select “ ” to rotate jib to the left or “ ” to rotate jib to the right. Select “ ” to tilt platform up or “ ” down. Select “ ” to raise riser or “ ” to lower riser. Select “ ” to move jib up or “ ” to move jib down.
6		**Boom/Turret Controller** Push and hold controller in this direction “ ” to rotate turret to the left or “ ” to rotate turret to the right. Push and hold the controller in this direction “ ” to raise main boom or “ ” to lower main boom.

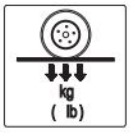
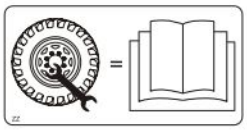
Motor/Hydraulic Side



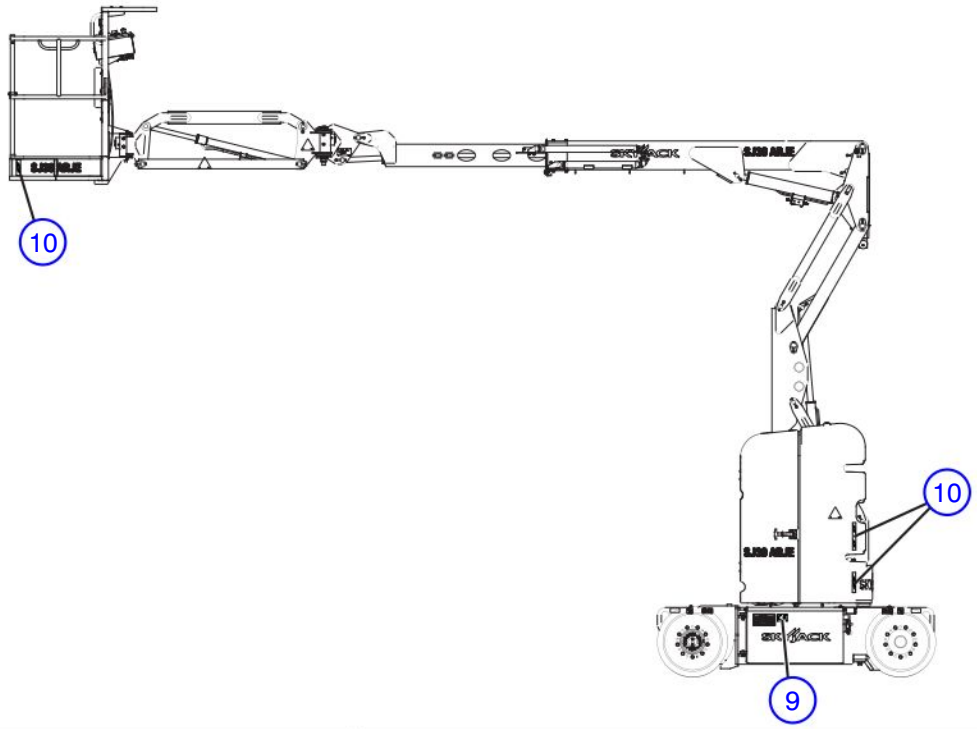
No.	Label Pictorial	Description
1	SJ30 ARJE	**Model Number*** Product Identifier *Model number will vary, may not be as shown.
2		**Body Crushing Hazard** Danger - Body crushing hazard
3		**Crushing Hazard** Danger - Crushing hazard
4		**Warning - Do Not Alter** Do not alter or disable limit switches or other safety devices.

Motor/Hydraulic Side (Continued)



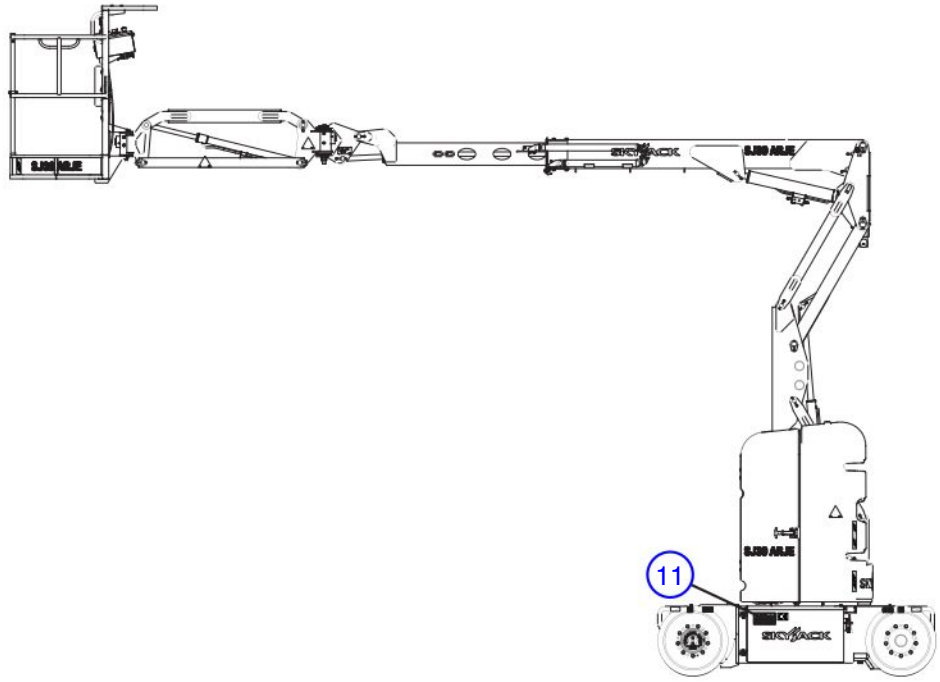
No.	Label Pictorial	Description
5	SKYJACK	**Skyjack Logo** Skyjack
6		**Lift and Tie Down Points** Only use these points for lifting or tying down.
7		**Wheel Load*** Indicates rated wheel load. *Wheel load will vary over different MEWPs.
8		**Wheel Specifications** Refer to manual for wheel type, offset, pressure and torque.

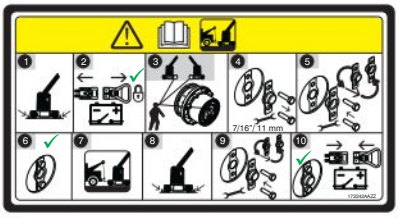
Motor/Hydraulic Side (Continued)



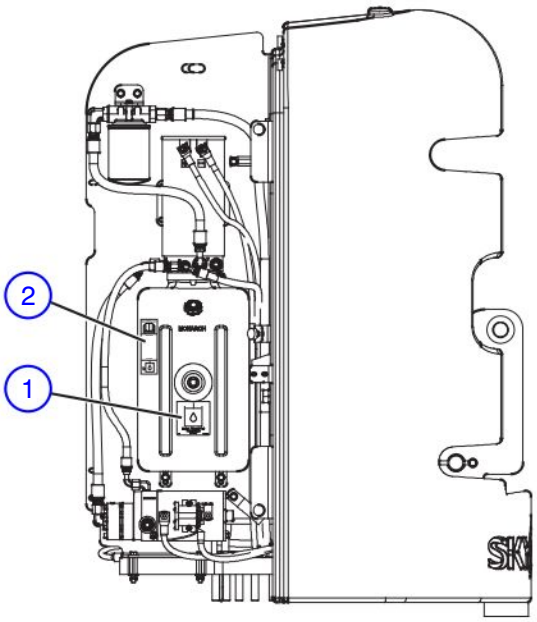
No.	Label Pictorial	Description
9		**“CE”** CE rating mark
10		**Caution Tape Stripe** Caution stripe

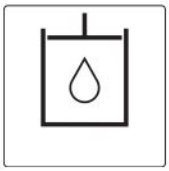
Motor/Hydraulic Side (Continued)



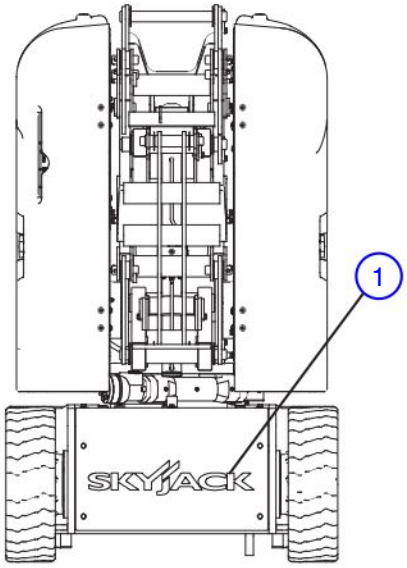
No.	Label Pictorial	Description
11		**Winching & Towing Procedure** Refer to Operating manual. 1. Block or chock wheels to prevent MEWP from rolling. 2. On either the left or right side of the MEWP, disconnect and lock out main power connector. 3. Locate disengage cap on torque-hub at rear of base. 4. Using a 7/16” (11mm) wrench, remove bolts. 5. Remove disengage cap and rotate to inward position. Insert disengage cap and fasten bolts. 6. Brake is now released. 7. Remove blocks/chocks from wheels and winch/tow to desired location. 8. Block or chock wheels to prevent MEWP from rolling. 9. Reengage brake by performing the following steps: • Using a 7/16” (11mm) wrench, remove bolts. • Remove disengage cap and rotate to outward position • Reattach disengage cap and fasten bolts. 10. Brake is now reengaged. On both the left and right sides of the MEWP, plug in main power connectors. **NOTE** Before operation, ensure all blocks/chocks are removed from wheels.

Motor/Hydraulic Compartment



No.	Label Pictorial	Description
1		**Hydraulic Oil** Replace hydraulic fluid with Shell Tellus T46 or approved alternate (see Table 4.2b).
2		**Hydraulic Oil Level** Indicates minimum/maximum oil level.

Rear Side



No.	Label Pictorial	Description
1	SKYJACK	**Skyjack Logo** Skyjack

6.0 Skyjack Features

Your Skyjack machine may be equipped with the following features:

SKYCODED™

At the heart of every Skyjack machine, proven and simplistic control systems using Skyjack's colour coded and numbered wiring system make our machines the easiest to trouble shoot and repair. – Black #14 is for the lift function on a 3219, and it is lift on a 63AJ. Using an analog based control system allows Skyjack AWPs to operate using a simplified system with fewer and less expensive components – less maintenance and lower costs.

SKYRISER™

A unique feature found on Skyjack's articulating boom lift. It ensures that the riser and main pivot point connecting the fly boom to the riser travel in a straight vertical line. Movement in a true vertical manner, without drifting forward or back, reduces the amount of repositioning the operator needs to do in order to stay close to a building façade.

EASYDRIVE™

A unique boom feature only utilized by Skyjack- the Boom Lift drive function operates in accordance with the general orientation of the turret's counterweight over the chassis (i.e. joystick forward=counterweight facing forward). This provides intuitive operation by allowing the unit to move in the general direction of the joystick's movement.

ACCESSORYZERS™

Having equipment with features and functionality that allow you and your customers to do more is a vital part of the utilization equation. Skyjack offers a range of accessory products to further expand a given products adaptability and your power to offer a truly flexible rental choice.

Notes

Notes



www.skyjack.com