

# SKYJACK™

## OPERATING MANUAL CE

This manual **MUST** be kept and stored with the aerial platform at all times.



**SJ800-E Series**

**Rough Terrain  
Battery Powered**

**For Service please call** ..... **800 275-9522**  
Skyjack Inc. Service Center 3451 Swenson Ave., St. Charles, IL. 60174 ..... *FAX 630 262-0006*  
**For Parts in North America and Asia please call** ..... **800 965-4626**  
Skyjack Inc. Parts Center 3451 Swenson Ave., St. Charles, IL. 60174 ..... *FAX 888 782-4825*  
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Skyjack Europe, Glovers Meadow, Maesbury Rd., Oswestry, Shropshire, U.K.....*FAX 44-1691- 676-239*



# OPERATING MANUAL CE

This manual MUST be kept and stored with the aerial platform at all times.

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USE THE SERIAL NUMBER OF YOUR MACHINE TO DETERMINE THE CORRECT OPERATING MANUAL TO USE			
Manual Part #	117131AH	129910AB (ANSI/CSA)	129911AB (CE)
Release Date	July 2002	April 2006	April 2006
M O D E L S	8831 E	43352 & Below	43354 & Above
	8841 E	43352 & Below	43354 & Above

60503AB

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



**This Safety Alert Symbol means attention!**

**Become alert! Your safety is involved.**



**DANGER**

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



**WARNING**

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



**CAUTION**

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

**IMPORTANT**

**IMPORTANT indicates a procedure(s) essential for safe operation and which, if not followed, may result in a malfunction or damage to the machine.**

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

### **Aerial Platform Definition**

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

### **Purpose of Equipment**

The SKYJACK SJ800 - E Series Rough Terrain (Models 8831E & 8841E) aerial platforms are designed to transport and raise personnel, tools and materials to overhead work areas

### **Use of Equipment**

The aerial platform is a highly maneuverable, mobile work station. Lifting and driving **MUST** be on a flat, level, compacted surface. The aerial platform can be driven over uneven terrain only when the platform is fully lowered.

### **Manual**

The operating manual is considered a fundamental part of the aerial platform. 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 aerial platform 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 aerial platform. Compare the labels on the aerial platform with the labels found within this manual. If any labels are damaged or missing, replace them immediately.

### **Optional Accessories**

The SKYJACK aerial platform is designed to accept a variety of optional accessories. These are listed under "Standard and Optional Features" in [Section 1.13](#).

Operating instructions for these options (**if equipped**) are located in [Section 2](#) of this manual.

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

 : 44 1691-676-235

 : 44 1691-676-239

Include the model and serial number for each applicable machine.

### **Scope of this Manual**

- a. This manual applies to the CE version of the SJ-800E series aerial platform models listed on [Table 2-1](#).  
  
- **Equipment identified** with "CE" meets the requirements for the European countries, i.e., Machinery Directive 98/37/EC and EMC Directive 89/336/EEC and the corresponding EN standards.
- b. Operators are required to conform to national, state or territorial/provincial and local health and safety regulations applicable to the operation of this aerial platform.

## 1. About Your Aerial Platform

This section provides general information about your aerial platform. It describes the major components, standard and optional features, safety reminders and precautions.

### 1.1 Major Assemblies

The aerial platform consists of three major assemblies: the platform, the lifting mechanism and the base. An operator's control box is mounted on one of the platform guardrails. Auxiliary and emergency controls are located at the base.

### 1.2 Platform

The platform is constructed of a tubular support frame, a skid-resistant "diamond plate" deck surface and 43-1/2" (1100mm) hinged guardrails with 6" (152mm) toe boards and mid-rails. The platform can be entered from either side through a spring-returned gate. All models can be equipped with a front or both front and rear extension platform.

### 1.3 Operator's Control Box

A removable control box, mounted at the front right of the platform, contains controls for aerial platform motion and emergency stopping.

### 1.4 Manual Storage Box

This weather-resistant box is mounted inside the door of the hydraulic cabinet located at the base. It contains the Operating Manual, the Operating/Maintenance and Parts Manual and other important documentation. The Operating Manual for this make and model of aerial platform **MUST** remain with the aerial platform and should be stored in this box.



### 1.5 Lifting Mechanism

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

### 1.6 Maintenance Support

A maintenance support is located inside the lifting mechanism. When properly positioned, it can support the scissor assembly and empty platform. The maintenance support **MUST** be used during inspection and maintenance or when repairs are being performed within the lifting mechanism.

### 1.7 Base

The base is a rigid, one-piece weldment which supports two component side cabinets.

- One cabinet contains the hydraulic components, up/down controls and electrical components.
- The other cabinet contains the hydraulic tank and the battery chargers.
- The front axle has two wheels, steerable by a hydraulic cylinder and is non-driven or drive shaft/gear box driven (4WD option).
- The rear axle is drive shaft/gear box driven and has a spring-applied hydraulically-released disc parking brake.
- The drive system is designed to automatically adjust to rough terrain or steep inclines.
- A slide-out drawer at the front of the base, supports a battery compartment which provides power to the electrical system.

### 1.8 Tilt Sensing System

The tilt sensing system, located on the base of the aerial platform, is designed to prevent lifting or driving when the machine is on a slope greater than a predetermined limit. If in this situation, the platform must be fully lowered immediately.

### 1.9 Load Sensing System

The load sensing system is a safety device that prevents any normal movement of the aerial platform from a stationary working condition after the rated load is reached and exceeded.

### 1.10 Lowering Warning System

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

### 1.11 Serial Number Nameplate

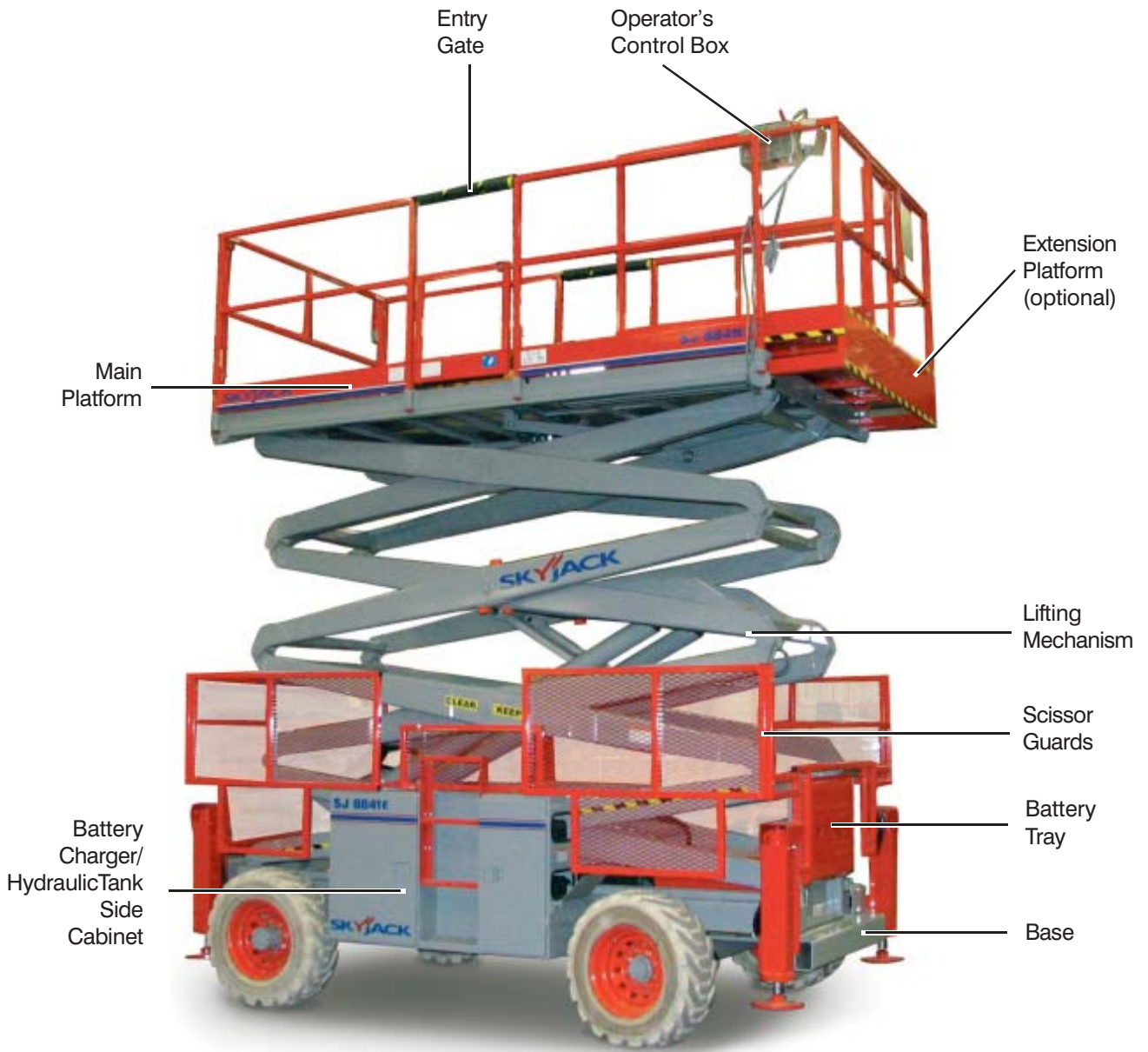
The serial number nameplate, located at the rear of the machine, lists the following:

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

Use this information for proper operation and maintenance and when ordering service parts.



1.12 Major Components



SKYJACK SJ800-E Series Aerial Platform

1.13 Standard and Optional Features

**SJ88xx E-Series Rough Terrain – SPECIFICATIONS – CE**

<b>STANDARD EQUIPMENT</b>
Operator horn
Joystick control
Diamond pattern, all steel platform deck construction
Access ladders and gates at both sides of platform
Flashing light and descent alarm
Hourmeter
Self-centering scissors design
Lockable cabinets with swing-out door
Color-coded, numbered wiring system
Tie down points
Hinged railing system with 15.24 cm toe boards
Battery compartment mounted on slide-out tray
Type #6 air filled tires (Models 8831E & 8841E)
AC outlet on platform
Scissor guards
Disc brake system on rear axle
Tilt alarm with lift/drive cut out
Base control station
D-rings (lanyard attachment points)
<b>OPTIONAL EQUIPMENT</b>
Movement alarm
Front and/or rear mounted 1.2 m powered extension platform
1.2 m slide out extension platform
4-wheel drive package
Rotating amber beacon
Type #6F foam filled tires
Type #7F foam filled tires
Type #7 air filled tires
Independently operated hydraulic outriggers
EE rating
1500 watt electrical inverter

60426AB-CE



**Warning**

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

### 1.14 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 aerial platform is mandatory. The following pages of this manual should be read and understood completely before operating the aerial platform.

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 Inc.

### 1.15 Electrocutation Hazard

**This aerial platform 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 aerial platform does not provide protection from contact with or proximity to an electrically charged conductor.**

**DO NOT USE THE MACHINE AS A GROUND FOR WELDING.  
DO NOT OPERATE THE MACHINE DURING LIGHTNING OR STORMS.**



**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!**

60023AC-CE

1.16 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 MACHINE and JOBSITE.
- **ENSURE** that the battery connector is properly disconnected when leaving the machine unattended. Remove the key to prevent unauthorized use of the aerial platform.
- **WEAR** all the protective clothing and personal safety devices issued to you or called for by job conditions.

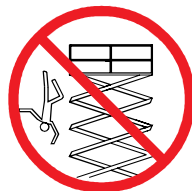
- **DO NOT** wear loose clothing, dangling neckties, scarves, rings, wristwatches or other jewelry while operating this lift.



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



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



- **DO NOT** raise the aerial platform in windy or gusty conditions.



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



- **DO NOT** drive or elevate the aerial platform 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 aerial platform.



- **If operation in areas with holes or drop-offs is absolutely necessary**, elevated driving shall not be allowed. Position the aerial platform horizontally only with the platform fully lowered. After ensuring that all 4 wheels or outriggers (if equipped) have contact with level firm surface, the aerial platform can be elevated. After elevation, the drive function must not be activated.



- **Elevated driving** must only be done on a firm level surface.



- **DO NOT** ascend or descend a grade when elevated. When fully lowered, ascending or descending, only grades up to the rated maximum listed in Table 2-1 are permissible.



1.16 Safety Precautions (Continued)

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

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

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



- **DO NOT** exert side forces on aerial platform while elevated.



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



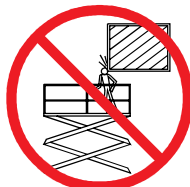
- **DO NOT** sit, stand or climb on the guardrails. It is prohibited.



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



- **BE AWARE** of overhead obstructions or other possible hazards around the aerial platform when driving or lifting.



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



- **BE AWARE** of crushing hazards. Keep all body parts inside platform guardrail.



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



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



- **BE AWARE** of blind spots when operating the aerial platform.
- **STUNT** driving and horseplay are prohibited.
- **ENSURE ALL** tires are in good condition and lug nuts are properly tightened.
- **DO NOT** alter or disable limit switches or other safety devices.
- **DO NOT** use the aerial platform without guardrails, locking pins and the entry gate/chain/bar in place.
- **DO NOT** exceed the rated capacity of the aerial platform. Do make sure the load is evenly distributed on the platform.

1.16 Safety Precautions (Continued)

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

- **DO NOT** overload the platform. The lift relief valve does not protect against overloading when the platform is elevated.
- **DO NOT** attempt to free a snagged platform with lower controls until personnel are removed from the platform.
- **DO NOT** position the aerial platform against another object to steady the platform.
- **DO NOT** place materials on the guardrails or materials that exceed that confines of the guardrails unless approved by Skyjack.



**Warning**

Entering and exiting the aerial platform should only be done using the three points of contact system.

- Use only equipped access openings and ladders.
- Enter and exit only when the aerial platform 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 machine 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 aerial platform or the ground at all times during entering and exiting.



**Warning**

**An operator should not use any aerial platform that:**

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

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

**Jobsite Inspection**

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

## 2. Operation

This section provides the necessary information needed to operate the aerial platform. It covers the basic and optional components of the machines, operation and start procedures, winching and towing procedure, loading/unloading, tires specifications, labels, platform capacities and tables related to the proper maintenance of this machine. It is important that the user reads and understands this section before operating the aerial platform.

### 2.1 General

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

#### 2.1-1 Operator Qualifications

- **ONLY** trained and authorized personnel **SHALL** be permitted to operate an aerial platform.
- Safe use of this aerial platform 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, manual of responsibilities and **ALL** warnings and instructions on the aerial platform.
- 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 aerial platform in the presence of a qualified person.

#### 2.1-2 Operator's Responsibility for Maintenance



**Warning**

Maintenance **MUST** be performed by competent personnel who are familiar with mechanical procedures.  
Death or serious injury could result from the use of an aerial platform that is not properly maintained or kept in good working condition.

- The operator must be sure that the aerial platform has been properly maintained and inspected before using it.
- The operator must perform **ALL** the daily inspections found in [Table 2-4](#), even if the operator is not directly responsible for the maintenance of this aerial platform.

#### 2.1-3 Maintenance and Inspection Schedule

- The inspection points covered in [Table 2-4](#) indicate the areas of the aerial platform to be maintained or inspected and at what intervals the maintenance and inspections are to be performed.
- The actual operating environment of the aerial platform may affect the maintenance schedule.



**Warning**

Use original or equivalent to the original parts and components for the aerial platform.

#### 2.1-4 Owner's Inspections

It is the responsibility of the owner to arrange daily, weekly, monthly and annual inspections of the aerial platform. Refer to [Table 2-4](#) for recommended maintenance and inspection areas and intervals. A record of annual inspection is kept on a label located on the scissor assembly. Refer to [Table 2-2](#) in this manual.

## 2.2 Component Identification

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

### 2.2-1 Battery Connectors

This connector is located at the front of the pull-out battery tray.

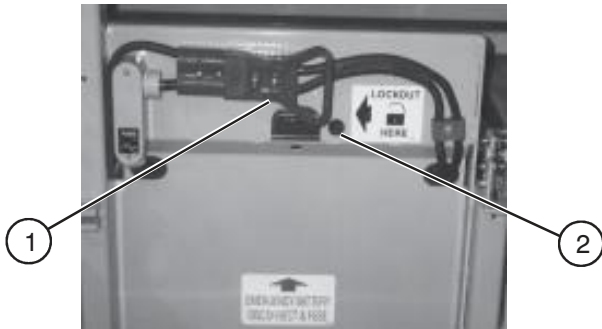


Figure 2-1. Battery Connectors

1. **Battery Connectors** - These connectors, when separated, disconnect the batteries and all power to the platform and base controls. In the event of an emergency or when performing maintenance, grasp the handle and pull the connectors apart.
2. **Battery Lockout** - This lockout is provided to prevent unauthorized use and for maintenance purposes.

### 2.2-2 Electrical Panel

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

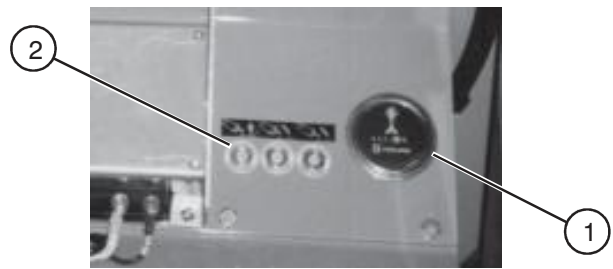


Figure 2-2. Electrical Panel

1. **Hourmeter** - This gauge activates when a function is selected. It records the accumulated time of operation of the aerial platform.
2. **Circuit Breaker Resets** - In the event of a power overload or positive circuit grounding, the circuit breaker will pop out. Make the necessary corrections, then depress the push-button to reset.

### 2.2-3 Base Controls

These controls are located outside of the rear of the hydraulic/electric cabinet. It contains the following controls:

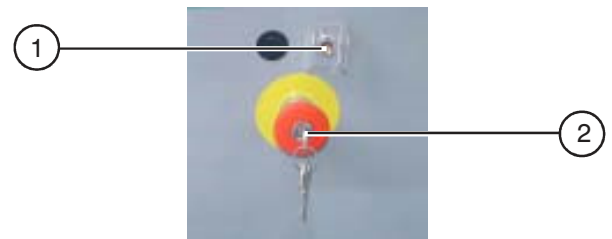


Figure 2-3. 1500W AC Inverter

1. **Platform UP/DOWN Toggle Switch** - This toggle type switch raises or lowers the platform to a desired height.
2. **Emergency Stop Button** - This red "mushroom-head" shaped button switch is designed to disengage power to both the platform and base controls.



### 2.2-4. Operator's Control Box

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

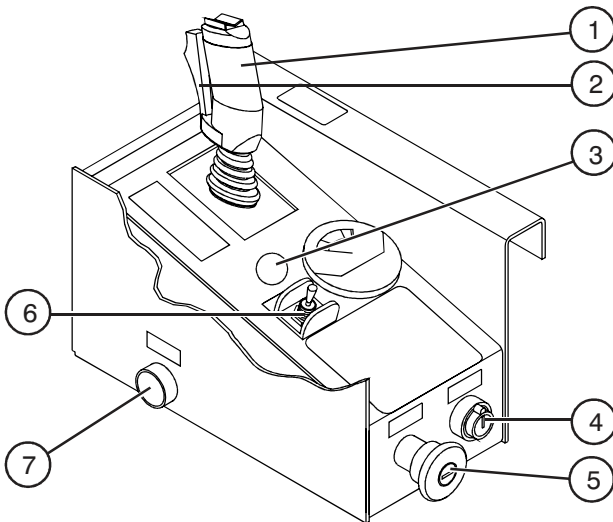


Figure 2-4. Operator's Control Box

1. **LIFT/DRIVE Controller** - A one-hand toggle-type lever controls the lift/drive and steer motions. Internal springs return it to neutral when stick is released.
2. **LIFT/DRIVE Enable Trigger Switch** - This momentary switch energizes the LIFT/DRIVE proportional controller. It must be held depressed continuously while engaging either the drive or lift functions.
3. **Warning Alarm Indicator Light** - This red-colored light indicates overload status. When the light flashes, it signals an overload function
4. **BASE/OFF/PLATFORM Select Key Switch** - This three-way selector switch allows the operator to turn off the power to the aerial platform or to activate either the base or platform controls.
5. **Emergency Stop Button** - When depressed, this red "mushroom-head" push-button switch disconnects power to the control circuit.

6. **LIFT/OFF/DRIVE Select Toggle Switch** - Selecting "LIFT" position allows the lift enable push button function to operate. Selecting "OFF" position disconnects power to the control box. Selecting "DRIVE" position allows the drive/steer functions.
7. **Horn Push-Button** - Located on the side of the operator's control box, this push-button switch, when depressed, sounds an automotive-type horn.

### 2.2-5 Tilt Alarm

The aerial platform is equipped with a device which senses when the machine is out of level in any direction. When activated, it disables drive and lift functions of the aerial platform and an alarm produces an audible sound accompanied by the amber light (if equipped). This alarm activates once every 1.5 seconds. Lower platform completely, then reposition machine so that it is level before raising platform.

#### Note

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

### 2.2-6 AC Outlet on Platform

**AC Outlet on Platform** - This outlet is a source of 110V/220V power on the platform.

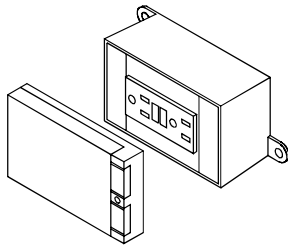


Figure 2-5. AC Outlet on Platform

### 2.2-7 Battery Charger

This machine is battery-powered and is equipped with two (2) battery chargers.

**Battery Charger** - The charger is located inside the hydraulic tank/battery charger cabinet. Refer to [Section 2.9-2](#) for details on charging operation.

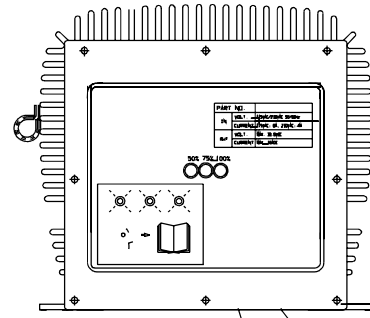


Figure 2-6. Battery Charger

**2.2-8 Lanyard Attachment Ring**

Use this ring as an attachment point for safety belt/harness tethers. DO NOT attach belts/harnesses to any other point on the platform. DO NOT use this ring to lift, anchor, secure or support the platform or any other apparatus or material.



Figure 2-7. Lanyard Attachment Ring

**Warning**

The lanyard attachment ring is used for travel restraint, within the limits of the platform only. It is not a fall arresting device! Used as such could result in death or serious injury.

**2.2-9 Parking Brake System**

The brake manifold is mounted in the hydraulic/electric cabinet located on the left side of the machine. The brake MUST be manually disengaged before pushing, towing or winching.

Refer to Section 2.7-1 for procedure on how to release the parking brake manually. It contains the following controls:

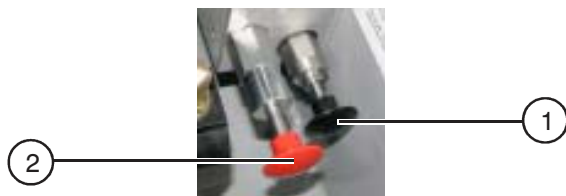


Figure 2-8. Brake Manifold

1. Brake Valve Plunger
2. Parking Brake Release Hand Pump

**2.2-10 Overload Warning System**

The aerial platform is equipped with a load sensing system (refer to Table 2-3 for maximum platform capacities).

**When 90% of the rated load is reached:**

The red power indicator light of the operator's control box flashes.

**When the rated load is reached:**

An audible alarm sounds for approximately 2 seconds, 5 times per minute.

**When the rated load is exceeded:**

The flashing light and audible alarm continue and all electrically controlled machine movement functions stop. To resume normal operation, remove the overload from the platform.

**If the machine during the operation comes in contact with an overhead obstruction:**

The platform could become overloaded and all functions would stop. Release of the platform from this situation can only be effected by use of the emergency lowering system. Refer to Section 2.8.

**Note**

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

**2.2-11 Folding Guardrail System**

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

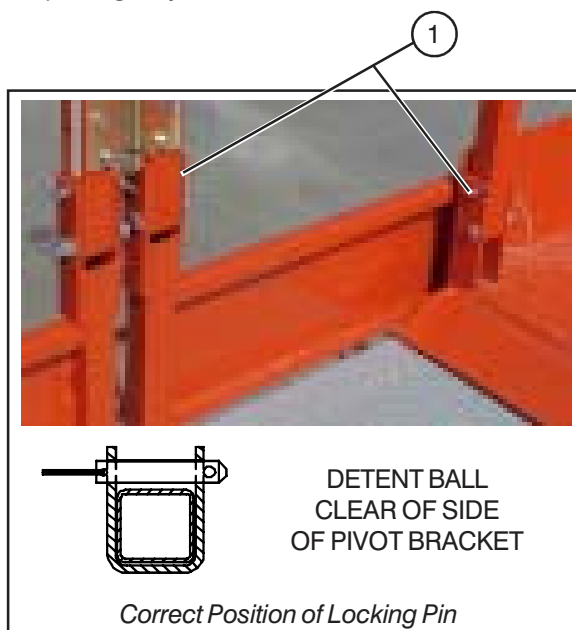


Figure 2-9. Fold-Down Guardrail System

**Warning**

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

- Guardrail Locking Pin with Lanyard** - To fold the guardrail system down, remove the locking pin at each pivot point and lower each guardrail. To raise the guardrail system, swing up each guardrail and lock in place with the locking pins ensuring that the detent ball of each pin is all the way through and clear of the side of the pivot brackets (Figure 2-9).

**Warning**

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

**2.2-12 Emergency Lowering System**

The emergency lowering system allows platform lowering in the event of an emergency or an electrical system failure. Refer to Section 2.8 for the emergency lowering procedure. The system contains the following controls:

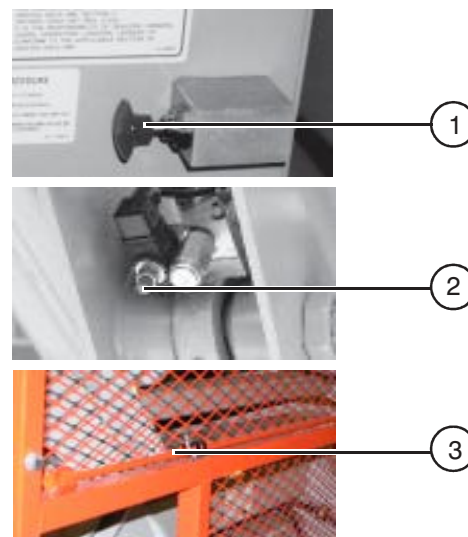


Figure 2-10. Emergency Lowering System

- Emergency Lowering Valve** - Located outside the hydraulic/electric cabinet next to the base controls.
- Holding Valve Manual Override Knob** - Located on the holding valve at the bottom of each lift cylinder.
- Access Rod** - Located at the scissor guard at the back of the machine.

2.2-13 Maintenance Support




Figure 2-11. Maintenance Support

- Maintenance Support** - The maintenance support is a safety mechanism designed to support the scissor assembly. When properly positioned it can support the scissor assembly and empty platform. The maintenance support **MUST** be used when inspection and/or maintenance is to be performed within the lifting mechanism.

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

To Store the Maintenance Support

- Ensure that the battery connector is connected.
- Raise platform until there is adequate clearance to swing up the maintenance support.
- Swing bar up into storage bracket.
- Lower platform.

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

Proper Use of Maintenance Support

- Remove all material from platform.
- Raise platform until there is adequate clearance to swing down the maintenance support. Refer to [Section 2.5-3](#) on how to raise the platform using the base controls.
- Swing maintenance support down from storage bracket into a vertical position
- Remove hands and arms from scissor assembly area.
- Lower platform until bottom end of maintenance support contacts the labeled cross bar and scissor assembly are supported by maintenance support. Refer to [Section 2.5-4](#) on how to lower the platform using the base controls.
- Disconnect the battery connector.

### 2.3 Component Identification (Special Options)

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

#### 2.3-1 Outrigger Controls (Auto-levelling) (If Equipped)

The outrigger controls are located next to the operator's control box. These switches control each outriggers' extension and retraction.

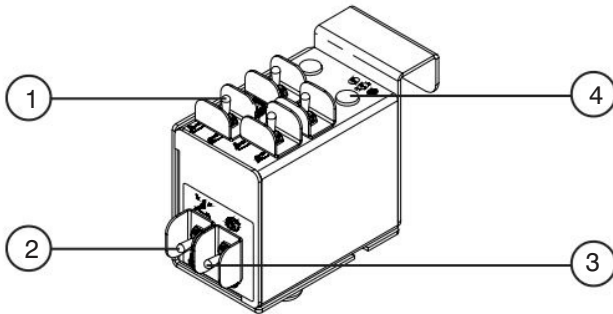


Figure 2-12. Outrigger Controls with All Options on Auxiliary Control Box Console

1. **Outrigger UP/DOWN Control Toggle Switches** - These switches control the extension and retraction of each individual outrigger.
2. **Auto-Level Toggle Switch** - When this switch is in the "DOWN" position, each outrigger extends and automatically adjusts until the machine is level. When the toggle switch is in the "UP" position the outriggers retract.
3. **Outrigger Enable Toggle Switch** - This toggle switch, when in the "UP" or "DOWN" position, provides outrigger power needed in order to activate the auto-level toggle switch functions.
4. **Auto Level Indicator Light** - This light functions when the auto and manual level functions are in use and illuminates to display the status of the auto-leveling outriggers. The indicator light has the following states:

**OFF:** The outriggers are fully retracted.

**FLASHING RAPIDLY:** The outriggers are extending but the platform is not level.

**FLASHING:** The outriggers are extended but the platform is not yet level.

**SOLID:** The outriggers are extended and the platform is level.

#### 2.3-2 Powered Extension Deck Control Box (If Equipped)

This metal control box is mounted on the extension platform guardrail. It contains the following controls:

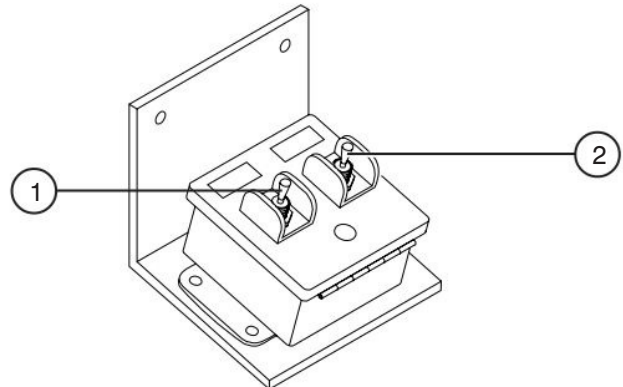


Figure 2-13. Powered Extension Deck Control Box

1. **Enable Switch** - This switch, when activated and held allows the extension deck extend/retract switch functions to operate.
2. **EXTEND/RETRACT Switch** - This switch, when activated, extends or retracts the powered extension deck. Refer to [Section 2.5-10](#) on how to extend/retract a powered extension deck.

**2.3-3 1500W AC Inverter (If Equipped)**

The inverter is located on the base of the machine. It has the following controls:



Figure 2-14. 1500W AC Inverter

<b>Note</b>
The inverter operation is automatic. These controls do not need to be manipulated for normal operation.

1. **ON/OFF Switch** - This diagnostic slide switch activates or terminates inverter operation. It should remain in the "ON" position.
2. **Status LEDs** - These LEDs indicate the operating or fault status of the inverter .
3. **15 Amp Circuit Breaker** - In the event of a power overload or circuit grounding, the circuit breaker will pop out. Push the breaker back in to reset.
4. **GFCI Outlet** - During inverter operation, this outlet provides AC power.

**2.3-4 Motion Alarm (If Equipped)**

The alarm produces an audible sound when any control function is selected. On machines with certain options, an amber light flashes while the alarm is activated.

## 2.4 Setup Procedure

The following are descriptions of normal operating procedures. A qualified operator **MUST** read and completely understand these descriptions before operating this aerial platform.

1. Before a new aerial platform is put into operation it must be carefully inspected for any evidence of damage resulting from shipment and inspected periodically thereafter. Refer to [Table 2-4](#), Maintenance and Inspection Schedule.
2. Remove all packing materials and inspect for damage incurred during transport. Report any damage to delivery carrier immediately.
3. Inspect aerial platform thoroughly and remove any foreign objects.
4. Raise all guardrails to their upright position and lock in place with locking pins. Refer to [Section 2.2-11](#).



### Warning

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

5. Disconnect the battery connector.
6. Remove the operator's control box from its shipping container and secure it to the guardrail at the right front of the platform.
7. Attach the control cable and power extension deck cable (**if equipped**) to the machine's control cable.

8. Move the aerial platform to a firm, level test area where the platform can be later vertically extended to its maximum working height. If the aerial platform is to be pushed, towed or winched, refer to [Section 2.7](#) for winching and towing procedure.
9. Unlock and open the hydraulic tank cabinet door.
10. Check the tank's hydraulic oil level (scissor assembly must be fully lowered). Level should be at or slightly above the top mark on the sight glass.

### Note

If required, add a quality grade hydraulic oil such as ATF Dexron III (ESSO). Never mix hydraulic oils.

11. Close the hydraulic tank cabinet door.
12. Unlock and roll out the battery tray.
13. Check the battery fluid level. If fluid level is not at FULL mark on the battery, add distilled or demineralized water only.



### 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.

14. Roll in the battery tray.
15. Connect the AC battery charger cord to the proper AC voltage source and charge the batteries. Refer to [Section 2.9](#) for battery charging procedures. When charger cycle is complete, disconnect battery charger AC cord.



16. From the base controls, carefully raise the platform. Refer to [Section 2.5-3](#) for procedure to raise the platform.
17. Unlatch and carefully swing down the maintenance support. Refer to [Section 2.2-13](#) for procedure to properly position the maintenance support.

**Warning**

The maintenance support must be used during inspection and maintenance or repairs are to be performed within the lifting mechanism. Failure to avoid this hazard could result in death or serious injury.

18. From the base controls, carefully lower the platform until the scissor assembly is firmly resting on the maintenance support. For procedure on how to lower the platform refer to [Section 2.5-4](#).
19. Inspect all hoses, fittings, wires, cables, valves, etc. for leaks, loose or missing parts, hidden damage and foreign material.
20. Raise the platform until there is an adequate clearance to swing up the maintenance support and lock in position.
21. Raise the platform to the maximum extension height.

**Warning**

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

22. Fully lower the platform.

## 2.5 Start Operation

Carefully read and completely understand ALL of this Operating Manual and ALL warnings and instruction labels on the aerial platform.

Before operating this aerial platform, perform the pre-start inspection and the tasks on the operator's check-list as described in this section.

### 2.5-1 Pre-Start Inspection

It is the responsibility of the operator to perform a pre-start inspection.

The pre-start inspection is a visual inspection performed by the operator prior to each work shift.

1. Ensure that there are no obstacles around the aerial platform and in the path of travel such as holes, drop offs, debris, ditches and soft fill.
2. Ensure that there are no electrical cords and hoses in the path of travel.
3. Ensure that the batteries are fully charged. Disconnect the AC charger cord from the external power source.
4. Ensure that the battery tray, hydraulic/electric and battery charger/hydraulic tank cabinets are closed and locked.
5. Make sure all guardrails and locking pins are in place and locked in position.
6. Make sure you do not climb or descend a grade steeper than rated maximum listed in [Table 2-1](#). Elevated driving must only be done on firm level surfaces.
7. Check overhead clearances.



### Warning

Do not use or operate the aerial platform if any component appears to be altered, damaged or if it is tagged or locked out for non-use or repair. Operation of aerial platform while in any of the above states may result in death or serious injury.




### Warning

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

### 2.5-2 Operator's Checklist

**It is the user's responsibility to inspect the machine operation before the start of each shift:**

1. Operating and emergency controls.
2. Safety devices and limit switches.
3. Personal protective devices.
4. Tires and wheels.
5. Outriggers (**if equipped**) and other structures.
6. Air, hydraulic and fuel system(s) for leaks.
7. Loose or missing parts.
8. Cables and wiring harnesses.
9. Placards, warnings, control markings and operating manuals.
10. Guardrail system including locking pins.
11. Battery fluid level.
12. Hydraulic reservoir level.
13. Parking brakes (**check operation**).

 **Warning**

**An operator should not use any aerial platform 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.

**2.5-3 To Raise the Platform using the Base Controls**

 **Warning**


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

1. Use the ladder of the aerial platform to access the aerial platform deck.
2. Close the gate/chain.
3. On the operator's control box, turn BASE/OFF/PLATFORM select key switch to "BASE" position.
4. Ensure the emergency stop button is pulled out.

 **Warning**

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

6. Use the ladder to dismount the platform.

 **Warning**

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

7. Ensure that the battery connector is properly connected.
8. Ensure the emergency stop button is pulled out.
9. Raise the platform by pressing "↑" (UP) with UP/DOWN toggle switch. Release until the desired height is reached.

**2.5-4 To Lower the Platform using the Base Controls**

1. Lower the platform by pressing "↓" (DOWN) with UP/DOWN toggle switch. Release until the desired height is reached.

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


**2.5-5 To Raise the Platform using the Operator's Control Box**

1. Ensure that the battery connector is properly connected.
2. On the base controls, pull out the emergency stop button.


 **Warning**

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

4. Use the ladder of the aerial platform to access the aerial platform deck.
5. Close the gate/chain.

 <b>Warning</b>
Be aware of overhead obstructions or other possible hazards around the machine when lifting.

6. On the operator’s control box, turn BASE/OFF/PLATFORM select key switch to “PLATFORM” position.
7. Ensure the emergency stop button is pulled out.
8. Select “LIFT” position with the LIFT/OFF/DRIVE select toggle switch.
9. Activate and hold the enable trigger switch by squeezing it towards the proportional controller.
10. Push the proportional controller handle forward until desired height is reached.
11. Return the proportional controller to the neutral center position to stop. Release the enable trigger switch.

 <b>Warning</b>
To protect against unintended movement of the aerial platform, push in the emergency stop button after you have arrived at your desired location or elevation.

<b>Note</b>
If the tilt alarm sounds and the platform does not, or only partially raises, immediately lower the platform and ensure that the machine is on a firm <b>LEVEL</b> surface.

**2.5-6 To Lower the Platform using the Operator’s Control Box**

 <b>Warning</b>
Do not lower the platform unless the area below is clear of personnel and obstructions.


1. Ensure the emergency stop button is pulled out.

2. Select “LIFT” position with the LIFT/OFF/DRIVE select toggle switch.
3. Activate and hold the enable trigger switch by squeezing it towards the proportional controller.
4. Pull the proportional controller handle backward until desired height is reached.

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

<b>Note</b>
Lowering is not proportional.

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

 <b>Warning</b>
To protect against unintended movement of the aerial platform, push in the emergency stop button after you have arrived at your desired location or elevation.


**2.5-7 To Drive Forward or Backward**

 <b>Warning</b>
Be aware of blind spots when operating the aerial platform.

 <b>Warning</b>
Ensure that there are no personnel or obstructions in the path of travel, including blind spots.

1. Ensure the emergency stop button is pulled out.
2. Select “DRIVE” position with the LIFT/OFF/DRIVE select toggle switch.
3. Activate and hold the enable trigger switch by squeezing it towards the proportional controller.

4. Push or pull the proportional controller handle forward or backward to the desired speed and direction of platform travel.
5. Return the proportional controller to the neutral center position to stop. Release the enable trigger switch.

 <b>Warning</b>
<p>To protect against unintended movement of the aerial platform, push in the emergency stop button after you have arrived at your desired location or elevation.</p>

**2.5-8 To Steer**

1. Select "DRIVE" position with LIFT/OFF/DRIVE toggle switch.
2. Press the rocker on top of the controller handle in the direction you wish to steer.

 <b>Warning</b>
<p>Steering is not proportional. It is not self-centering and will remain in the selected orientation. Driving and steering may be active at the same time.</p>

**2.5-9 To Extend/Retract the Manual Extension Deck**

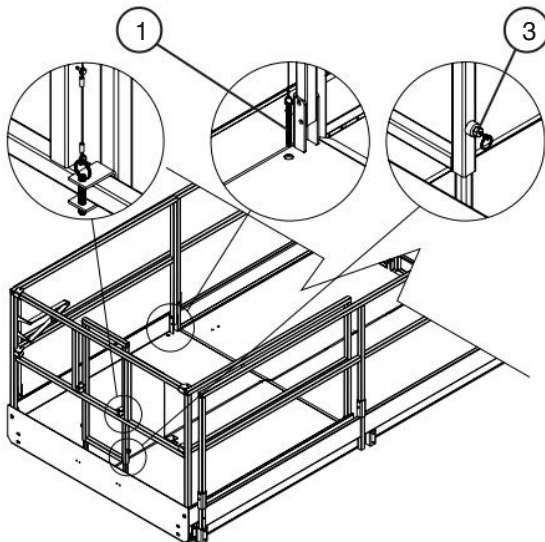



Figure 2-15. Manual Extension Deck

1. To extend/retract the manual extension deck, remove the locking pin (item 1) then remove the push bar locking pins (item 2) and rotate the push bar towards the main platform. Extend the push bar until it locks at full extension and push/pull the extension deck using the push bar.
2. Upon full extension or retraction, reinsert the locking pin on the platform (item 1) to prevent accidental movement of the manual extension deck during travel or transport.
3. When the push bar is not in use, pull the plungers (item 3) on the push bar and retract it, then rotate it back to its resting position and lock it into place with the locking pins (item 2).

**2.5-10 To Extend/Retract the Powered Extension Deck**

1. To extend the powered extension deck, ensure the emergency stop button is pulled out.
2. On the operator's control box, select "LIFT" position with LIFT/OFF/DRIVE toggle switch.
3. On the powered extension deck control box, activate the enable switch, then push the extension/retraction toggle switch to the "↑" (EXTEND) position until desired extension is reached. Release switch to stop.
4. To retract the platform, ensure the emergency stop button is pulled out and select "LIFT" position using the LIFT/OFF/DRIVE toggle switch.
5. On the powered extension deck control box, activate the enable switch, then push the EXTEND/RETRACT toggle switch to the "↓" (RETRACT) position until desired extension is reached. Release switch to stop.

 <b>Warning</b>
<p>To protect against unintended movement of the aerial platform, push in the emergency stop button after you have arrived at your desired location or elevation.</p>

**2.5-11 Hydraulic Outriggers (If Equipped)**

These devices are mounted to the four corners of the base. When properly positioned, they increase the stability of the aerial platform.

**2.5-11a Before Operation**

1. Move around the aerial platform to check overhead clearances and ground obstructions.
2. Check that the platform is fully lowered. The outrigger controls are not functional when the platform is raised.
3. Check that the supporting surface under the tires and outrigger pads is level, firm and capable of supporting aerial platform and rated load. **DO NOT** place outrigger pad on a street drain, manhole cover or other unsupported surface.

**2.5-11b Extending the Outriggers**

1. Ensure the emergency stop button is pulled out. Select "PLATFORM" from the BASE/OFF/PLATFORM select key switch. Select the "LIFT" position with LIFT/OFF/DRIVE select toggle switch.
2. Check that the platform is fully lowered. The outrigger controls are not functional when the platform is raised.
3. Select the "UP" or "DOWN" position with the outrigger toggle switch in order to provide power to the outrigger circuit.
- 4a. **Auto Level:** While holding the outrigger enable toggle switch, activate the auto-level toggle switch in the "DOWN" position until the the auto-level indicator light stops flashing and remains on in a solid state. The aerial platform should be completely supported by the outriggers and level at this point.

- 4b. **Manual Level:** While holding the outrigger enable toggle switch, extend each outrigger using the individual outrigger toggle switches until the platform is fully supported by the outriggers and is level. The indicator light will flash while the platform is being leveled, the light will remain solid once the platform is level. The indicator light has the following states:

**OFF:** The outriggers are fully retracted.

**FLASHING RAPIDLY:** The outriggers are extending but the platform is not level.


**FLASHING:** The outriggers are extended but the platform is not yet level.

**SOLID:** The outriggers are extended and the platform is level.

6. **Check that each outrigger pad is in firm contact with a suitable supporting surface!** Make adjustments if necessary using the independent outrigger controls.
7. Operate all (non drive) functions as described in their respective sections.

<b>Note</b>
Each outrigger pad must be in firm contact with the ground for most aerial platform functions to work.

<b>Note</b>
Drive functions are disabled if the outriggers are in any position other than fully retracted.

 <b>Warning</b>
If alarm sounds during operation, the aerial platform is not level or an outrigger does not have firm ground contact. Lower the platform immediately! Make the necessary adjustments to level the aerial platform.

**2.5-11c Retracting the Outriggers**


1. Ensure the emergency stop button is pulled out. Select the "LIFT" position with LIFT/OFF/DRIVE select toggle switch.
2. Lower the aerial platform.
- 3a. **Auto Retract:** Select and hold the outrigger enable toggle switch in either the "UP" or "DOWN" position, then activate the the auto-level toggle switch in the UP position until the outriggers are fully retracted.
- 3b. **Manual Retract:** Select and hold the outrigger enable toggle switch in either the "UP" or "DOWN" position, then push and hold pairs (front or rear) of outrigger UP/DOWN toggle switches to "UP" position until the outriggers are fully retracted.

**Note**

Limit switches are used to protect the outriggers from being damaged. If aerial platform will not drive, visually check to see that ALL outriggers are fully retracted.

**2.5-12 Electrical Inverter (If Equipped)**


1. Ensure that the battery connector is properly connected.
2. Make sure the ON/OFF switch of the inverter is ON.
3. Inverter activation is indicated by a glowing green LED on the front of the inverter.

 **Caution**

The battery connector **MUST** be properly disconnected at the end of the shift or the batteries will drain.

**2.5-13 Shutdown Procedure**

1. Completely lower the platform.
2. Push in emergency stop button located on operator's control box.
3. Turn BASE/OFF/PLATFORM select key switch to "OFF" position and remove the key (if equipped) from the control box.

 **Warning**

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

4. Dismount the platform using the ladder.
5. Disconnect the battery connector.

## 2.6 Loading/Unloading

KNOW all national, state or territorial/provincial and local rules which apply to your loading/unloading of aerial platforms.

Only qualified personnel shall operate machinery during loading/unloading.

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

The transport vehicle must be parked on a level surface and must be secured to prevent rolling while the aerial platform is being loaded or unloaded.

### 2.6-1 Lifting

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

- The platform must be fully lowered.
- The battery connector must be disconnected.
- The hydraulic/electric and battery charger/hydraulic tank cabinets must be closed and securely latched.
- The extension deck must be retracted and secured.
- The control box must be secured to the railings or removed.
- The platform must be cleared of all personnel, tools, and materials.
- The lifting/rigging may be attached to all four lifting points as illustrated in [Figure 2-16](#).

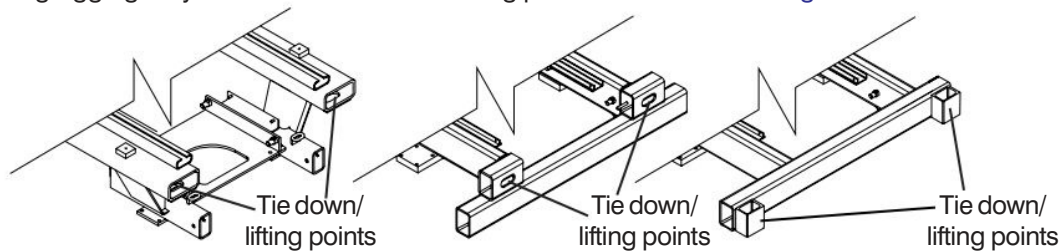


Figure 2-16. Tie Downs/Lifting Points

#### Note

The mass of the aerial platform is as per [Table 2-1](#). The center of gravity is approximately located in the middle of the aerial platform, front to back and side to side, as illustrated in [Figure 2-17](#). Vertically, the center of gravity is approximately just above the base chassis.

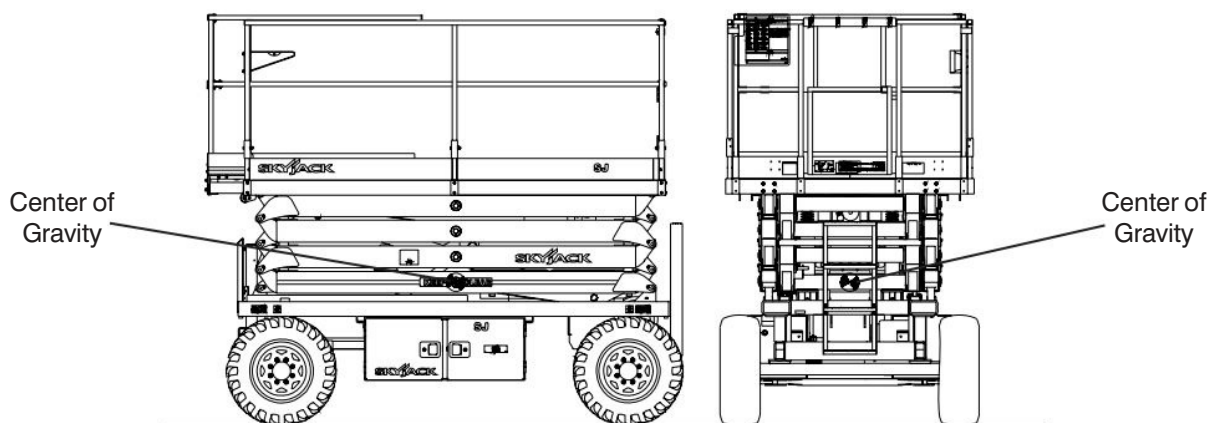


Figure 2-17. Center of Gravity



**Note**

The aerial platform can be lifted with a forklift from the sides but Skyjack does not recommend this use. Lift with forks in designated pockets as illustrated in [Figure 2-18](#).

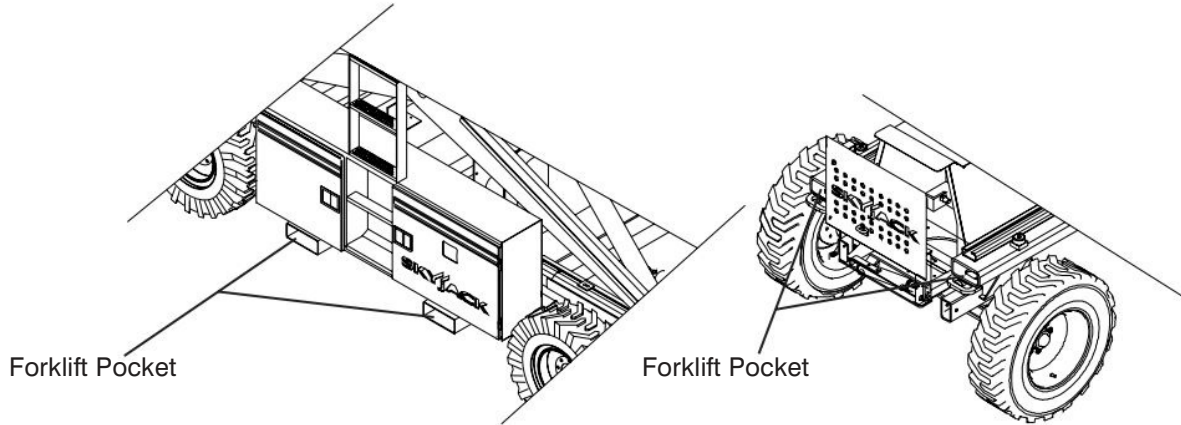


Figure 2-18. Forklift Pockets

**2.6-2 Driving**

When driving the aerial platform:

- Ramp or dock capacity should be sufficient to withstand maximum machine weight.
- Ramp should be equipped with side guards to prevent inadvertent fall from the ramp.
- Incline should not exceed machine gradeability (refer to [Table 2-1](#)).
- Aerial platform brakes should be checked for proper operation.
- Aerial platform speed should be on high torque setting.

 **Warning**

When transporting, the aerial platform must be secured to the truck or trailer deck. Tie downs are available as illustrated in [Figure 2-16](#).

## 2.7 Winching and Towing Procedure

This section provides the operator the procedures with towing and winching and on how to manually release the parking brake.

### Warning

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

### Warning

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

### Warning

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

### Warning

Do not push, tow or winch vehicle on to a slope, or brake the towing vehicle rapidly. Do not pull the aerial platform down an incline towards a winch.

## 2.7-1 To Release the Parking Brake Manually

### Warning

Do not manually disengage the parking brakes if the aerial platform is on a slope.



Figure 2-19. Parking Brake System

**Parking Brakes** - The brakes MUST be manually disengaged for pushing, towing or winching.

1. Make sure that the aerial platform is on level ground. Chock or block the wheels to keep the aerial platform from rolling.
2. Disconnect the battery connector.
3. In the hydraulic cabinet, depress the black plunger (item 1) on the brake valve until the plunger stays in.
4. Grasp the red hand pump plunger (item 2) and rapidly depress (60 to 80 pumps) until firm resistance is felt. The brake is now released.
5. Remove the wheel chocks or blocks then push, tow or winch the aerial platform to the desired location.
6. Position the machine on a firm and level surface.
7. Chock or block the wheels to prevent the aerial platform from rolling.
8. Re-engage the parking brake by either momentarily activating the drive function or pulling out the black brake valve plunger.

### Note

The parking brake will reset automatically when the drive function is selected.

## 2.8 Emergency Lowering Procedure

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



### Warning

Keep clear of scissors mechanism when using emergency lowering valve.

1. Remove any obstructions from a descending platform.
2. The extension platform(s) may need to be retracted or the platform may need to be moved to clear the obstruction. Refer to [Section 2.7, Winching and Towing Procedure](#), for proper instructions.

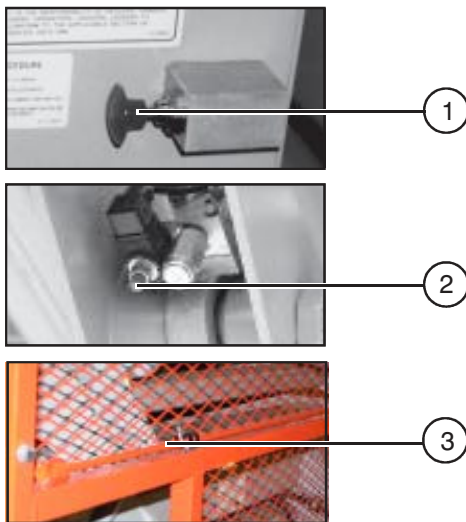


Figure 2-20. Emergency Lowering System

3. Locate the holding valve manual override knobs (item 2) at the base of each lift cylinder. Depress and turn counter-clockwise. If necessary, use the access rod (item 3) that is located on the base of the machine.

4. On the hydraulic cabinet, pull out and hold the lowering valve plunger (item 1) to lower the platform.
5. To restore normal operation, depress and turn the holding valve manual override knobs clockwise.

## 2.9 Battery Maintenance

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

### 2.9-1 Battery Service Procedures

**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. Ensure that the battery connector is properly connected.
2. Check battery case for damage.
3. Check battery fluid level in each battery. If plates are not covered by at least 1/2" (13mm) 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 aerial platform.

### 2.9-2 Battery Charging Operation

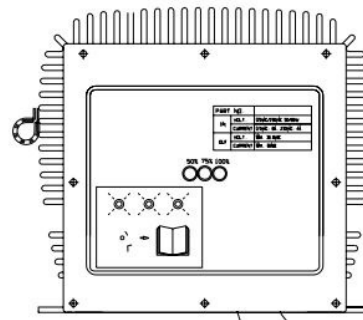


Figure 2-21. Battery Charger

**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.

 <b>Caution</b>
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.

- 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.

 <b>Danger</b>
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.

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

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

- 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	1 <sup>ST</sup> LED	2 <sup>ND</sup> LED	3 <sup>RD</sup> 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 re-start automatically. Check and correct for dirt or other debris on charger that may be reducing cooling.

**3 LEDs blink four times simultaneously:**

Input or output over current. No action required, charger will correct and re-start 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.

**EE-Rated Machines****Warning**

Do not charge batteries in hazardous area!  
The EE-rating of a machine does not include the  
charging of batteries.

1. Move the aerial platform to an area designated for battery charging. Refer to NFPA 505 for charging set-up. NFPA 505 is a publication of the **National Fire Protection Association, Inc.**, Batterymarch Park, Quincy, MA 02269 (USA).
2. Connect battery charger DC plug into the battery plug at the rear of the base.
3. Charge batteries. Refer to [Section 2.9-2](#) for battery charging operation. When charge cycle is completed, disconnect charger plug from battery tray.

Table 2-1. Specifications and Features

Model		8831E	8841E
Weight*		4,898 kg	5,306 kg
Width		2.21m	
Length		3.5 m	
Platform Size		1.73 x 3.39 m	
Height	Elevated Working	11.28 m	14.3 m
	Elevated Platform	9.4 m	12.5 m
	Stowed Platform	1.50 m	1.75 m
	Drive	7.9 m	
Tires	Standard	30 x 10-16.5 #6 Air filled	30 x 10-16.5 #6 Air filled
	Optional	#6 or #7 Foam filled	
Speed	Normal Drive Max	4.2 km/h	
	Elevated Low Drive Max	0.8 km/h	
	Lift Rated Load	46 sec.	71 sec.
	Lower Rated Load	48 sec.	60 sec.
Gradeability		30%	

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\* Weights are approximate; refer to serial nameplate for specific weight. Values shown are for standard 2WD machines on air tires with a manual extension platform Mid Size RT's and no extension platforms Full Size RT's.

**Table 2-2. Owner's Annual Inspection Record**

Model Number _____				Serial Number _____				
Recording Date								
Recording Year #	1	2	3	4	5	6	7	8
Owner's Name								
Inspected By								

60141AA

As described earlier in this section, this decal is located on the scissor assembly. It must be completed after an annual inspection has been completed. Do not use the aerial platform if an inspection has not been recorded in the last 13 months.



Table 2-3. Maximum Platform Capacities (Evenly Distributed)

MODEL		Total		First Extension		Second Extension	
		Capacity	Number of Occupants	Capacity	Number of Occupants	Capacity	Number of Occupants
8831E	No Extension Platform	1134 kg	6	Not Available			
	One Extension Platform	908 kg	5	227 kg	2	Not Available	
	Two Extension Platforms	681 kg	4	227 kg	2	227 kg	2
8841E	No Extension Platform	681 kg	4	Not Available			
	One Extension Platform	681 kg	4	227 kg	2	Not Available	
	Two Extension Platforms	681 kg	4	227 kg	2	227 kg	2

60279AC-CE

**NOTE:**

Occupants AND materials are not to exceed rated load.  
 Capacities listed are for standard machines equipped with #6 tires.  
 Refer to capacity label at sides of platform for additional information and for models equipped with options.

BEAUFORT SCALE	Wind Speed				Ground Conditions
	m/s	km/h	ft/s	mph	
3	3.4 - 5.4	12.5 - 19.4	11.5 - 17.75	5 - 12.0	Papers and thin branches move, flags wave
4	5.4 - 8.0	19.4 - 28.8	17.75 - 26.25	12.0 - 18	Dust is raised, paper whirls up, and small branches sway.
5	8.0 - 10.8	28.8 - 38.9	26.25 - 35.5	18 - 24.25	Shrubs with leaves start swaying. Wave crests are apparent in ponds or swamps.
6	10.8 - 13.9	38.9 - 50.0	35.5 - 45.5	24.5 - 31	Tree branches move. Power lines whistle. It is difficult to open an umbrella.
7	13.9 - 17.2	50.0 - 61.9	45.5 - 65.5	31 - 38.5	Whole trees sway. It is difficult to walk against the wind.

60338AB

**General Maintenance**

Before attempting any repair work, disconnect the battery by disconnecting the battery connector. Preventative maintenance is the easiest and least expensive type of maintenance.

**Table 2-4. Maintenance and Inspection Schedule**

	Daily	Weekly	Monthly	3 Months	6 Months	12 Months*
<b>Mechanical</b>						
Structural damage/welds	A			A		A
Parking brake	B & E			B & E		B & E
Tires/wheels & fasteners	A, B & C			A, B & C		A, B & C
Guides/rollers & slider pads	A, B & I			A, B & I		A, B & I
Railings & railing lock pins	A & C			A & C		A & C
Entry gates	B & C			B & C		B & C
Bolts and fasteners	C			C		C
Maintenance support	B			B		B
Rust			A	A		A
Wheel bearings & king pins	A, B & E			A, B & E		A, B & E
Axle gear oil**				F		F
Steering cylinder & tie rod				A, B & E		A, B & E
<b>Electrical</b>						
Battery fluid level	A			A		A
Control switches	A & B			A & B		A & B
Cords, wiring & static strap	A			A		A
Battery terminals	A & C			A & C		A & C
Terminals & plugs	C			C		C
Receptacle	A & B			A & B		A & B
Limit switches	B			B		B
<b>Hydraulic</b>						
Hydraulic oil level	H			H		H
Hydraulic hoses/fittings	A & L	C		A, L & C		A, L & C
Lift/lowering speeds				G		G
Cylinders		A & B		A & B		A & B
Emergency lowering	B			B		B
Lift capacity			D	D		D
Hydraulic oil filter					F	F
<b>Miscellaneous</b>						
Labels and manual	A, J & K			A, J & K		A, J & K
Lanyard attachments	A & C			A & C		A & C
Check for applicable service bulletins					A	A
<b>Notes</b>						
A. Visually inspect. B. Check operation. C. Check tightness. D. Check relief valve setting. Refer to serial number nameplate. E. Lubricate. F. Replace. G. Refer to Table 2-1 "Specifications and Features." H. Check oil level. I. Ensure there is no metal to metal contact with slider, slider side or running surface. Check for free movement of surface. Also check for free movement of the slider pin through the slider. J. Replace if missing or illegible. K. Proper manual must be in box. L. Check for Leaks. * Record inspection date and signature. ** Gear Oil Requirements: Axle: ESSO GX 85W-140 Center Drive: ESSO GX 85W-140						

60280AE



**Warning**

Use original or equivalent to the original parts and components for the aerial platform.

Table 2-5. EC Declaration of Conformity

## EC Declaration of Conformity

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

Model number: [\*]

Serial number: [\*]

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

Machinery Directive 98/37/EC

Notified body is: [\*]

EC type Examination Certificate No: [\*]

Machinery Directive 98/37/EC as related to Load Sensing System

Notified body is: [\*]

EEC Type Examination Certificate No: [\*]

Directive 89/336/EEC

Certified laboratory: [\*]

The Technical Construction File is maintained at:

[\*]

The authorized representative located within the community is:

[\*]

Place of issue:

[\*]

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

Test Engineer:

Quality Coordinator:

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



MOBILE ELEVATING PLATFORMS

[www.skyjackinc.com](http://www.skyjackinc.com)