



An Oshkosh Corporation Company



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Operation and Safety Manual

Original Instructions - Keep this manual with the machine at all times.

Model - 10MSP

ANSI

CE



AS/NZS

3121227

June 29, 2018 - Rev L

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WARNING

Operating, servicing and maintaining this vehicle or equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle or equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing. For more information go to www.P65Warnings.ca.gov.

FOREWORD

This manual is a very important tool! Keep it with the machine at all times.

The purpose of this manual is to provide owners, users, operators, lessors, and lessees with the precautions and operating procedures essential for the safe and proper machine operation for its intended purpose.

Due to continuous product improvements, JLG Industries, Inc. reserves the right to make specification changes without prior notification. Contact JLG Industries, Inc. for updated information.

SAFETY ALERT SYMBOLS AND SAFETY SIGNAL WORDS



This is the Safety Alert Symbol. It is used to alert you to the potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death

DANGER

INDICATES AN IMMINENTLY HAZARDOUS SITUATION. IF NOT AVOIDED, WILL RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE A RED BACKGROUND.

WARNING

INDICATES A POTENTIALITY HAZARDOUS SITUATION. IF NOT AVOIDED, COULD RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE AN ORANGE BACKGROUND.

CAUTION

INDICATES A POTENTIALITY HAZARDOUS SITUATION. IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO ALERT AGAINST UNSAFE PRACTICES. THIS DECAL WILL HAVE A YELLOW BACKGROUND.

NOTICE

INDICATES INFORMATION OR A COMPANY POLICY THAT RELATES DIRECTLY OR INDIRECTLY TO THE SAFETY OF PERSONNEL OR PROTECTION OF PROPERTY.

⚠ WARNING

THIS PRODUCT MUST COMPLY WITH ALL SAFETY RELATED BULLETINS. CONTACT JLG INDUSTRIES, INC. OR THE LOCAL AUTHORIZED JLG REPRESENTATIVE FOR INFORMATION REGARDING SAFETY RELATED BULLETINS WHICH MAY HAVE BEEN ISSUED FOR THIS PRODUCT.

NOTICE

JLG INDUSTRIES, INC. SENDS SAFETY RELATED BULLETINS TO THE OWNER OF RECORD OF THIS MACHINE. CONTACT JLG INDUSTRIES, INC. TO ENSURE THAT THE CURRENT OWNER RECORDS ARE UPDATED AND ACCURATE.

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For :

- Accident Reporting
- Product Safety Publications
- Current Owner Updates
- Questions Regarding Product Safety
- Standards and Regulations Compliance Information
- Questions Regarding Special Product Applications
- Questions Regarding Product Modifications

Contact:

Product Safety and Reliability Department
JLG Industries, Inc.
1 JLG Drive
McConnellsburg, PA 17233

or Your Local JLG Office
(See addresses on manual rear cover)

In USA:

Toll Free: 877-JLG-SAFE (877-554-7233)

Outside USA:

Phone: 240-420-2661
E-mail: ProductSafety@JLG.com

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SECTION 1. SAFETY PRECAUTIONS

1.1 GENERAL

This section outlines the necessary precautions for proper and safe machine usage and maintenance. For proper machine use, it is mandatory that a daily routine is established based on the content of this manual. A maintenance program, using the information provided in this manual and the Service and Maintenance Manual, must also be established by a qualified person and must be followed to ensure that the machine is safe to operate.

The owner/user/operator/lessor/lessee of the machine should not accept operating responsibility until this manual has been read, training is accomplished, and operation of the machine has been completed under the supervision of an experienced and qualified operator.

If there are any questions with regard to safety, training, inspection, maintenance, application, and operation, please contact JLG Industries, Inc. ("JLG").

WARNING

FAILURE TO COMPLY WITH THE SAFETY PRECAUTIONS LISTED IN THIS MANUAL COULD RESULT IN MACHINE DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

NOTICE

THE FOLLOWING INFORMATION IS PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EUROPEAN MACHINERY DIRECTIVE 2006/42/EC AND IS ONLY APPLICABLE TO CE MACHINES:

FOR ELECTRIC POWERED MACHINES, THE EQUIVALENT CONTINUOUS A-WEIGHTED SOUND PRESSURE LEVEL AT THE WORK PLATFORM IS LESS THAN 70DB(A).

FOR COMBUSTION ENGINE POWERED MACHINES, GUARANTEED SOUND POWER LEVEL (LWA) PER EUROPEAN DIRECTIVE 2000/ 14/EC (NOISE EMISSION IN THE ENVIRONMENT BY EQUIPMENT FOR USE OUTDOORS) BASED ON TEST METHODS IN ACCORDANCE WITH ANNEX III, PART B, METHOD 1 AND 0 OF THE DIRECTIVE, IS 109 DB.

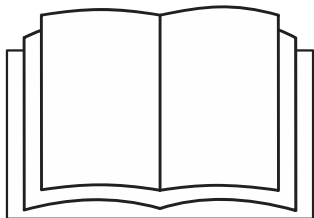
THE VIBRATION TOTAL VALUE TO WHICH THE HAND-ARM SYSTEM IS SUBJECTED DOES NOT EXCEED 2,5 M/S². THE HIGHEST ROOT MEAN SQUARE VALUE OF WEIGHTED ACCELERATION TO WHICH THE WHOLE BODY IS SUBJECTED DOES NOT EXCEED 0,5 M/S².

SECTION 1 - SAFETY PRECAUTIONS

1.2 PRE-OPERATION

Operator Training And Knowledge

- Read and understand this manual before operating the machine.



- Do not operate this machine until complete training is performed by authorized persons.
- Only authorized and qualified personnel can operate the machine.
- Read, understand, and obey all DANGERS, WARNINGS, CAUTIONS, and operating instructions on the machine and in this manual.
- Use the machine in a manner which is within the scope of its intended application set by JLG.

- All operating personnel must be familiar with the emergency controls and emergency operation of the machine as specified in this manual.
- Read, understand, and obey all applicable employer, local, and governmental regulations as they pertain to operation of the machine.

Workplace Inspection

- The operator is to take safety measures to avoid all hazards in the work area prior to machine operation.
- Do not operate or raise the platform while on trucks, trailers, railway cars, floating vessels, scaffolds or other equipment unless approved in writing by JLG.
- This machine can be operated in temperatures of 0° F to 104° F (-20° C to 40° C). Consult JLG for operation outside this range.

Machine Inspection

- Before machine operation, perform inspections and functional checks. Refer to Section 2 of this manual for detailed instructions.
- Do not operate this machine until it has been serviced and maintained according to requirements specified in the Service and Maintenance Manual.
- Ensure all safety devices are operating properly. Modification of these devices is a safety violation.

WARNING

MODIFICATION OR ALTERATION OF AN AERIAL WORK PLATFORM SHALL BE MADE ONLY WITH PRIOR WRITTEN PERMISSION FROM THE MANUFACTURER.

- Do not operate any machine on which the safety or instruction placards or decals are missing or illegible.
- Avoid any build up of debris on platform floor. Keep mud, oil, grease, and other slippery substances from footwear and platform floor.

1.3 OPERATION

General

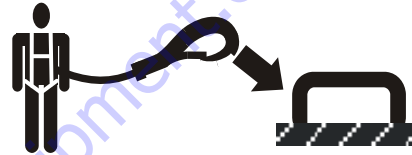
- This machine is an electric powered self-propelled machine with an aerial work platform and attached adjustable material handling tray, mounted to an elevating mast mechanism. The personnel lift's intended purpose is to provide personnel access to areas above ground level to allow placing and removing of stock from storage or display areas.
- Do not use the machine for any purpose other than positioning personnel, their tools and equipment, or for hand stock picking or placing.
- Never operate a machine that is not working properly. If a malfunction occurs, shut down the machine.
- Never slam a control switch or lever through neutral to an opposite direction. Always return switch to neutral and stop before moving the switch to the next function. Operate controls with slow and even pressure.
- Do not allow personnel to tamper with or operate the machine from the ground with personnel in the platform, except in an emergency.
- Do not carry materials directly on platform railing unless approved by JLG.

SECTION 1 - SAFETY PRECAUTIONS

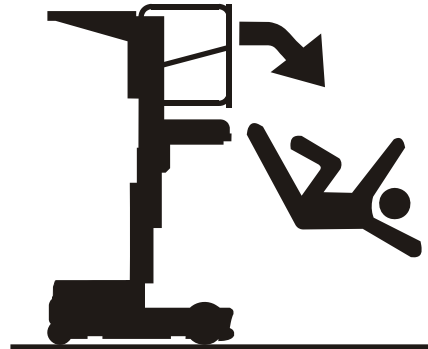
- Always ensure that power tools are properly stowed and never left hanging by their cord from the platform work area.
- Fully lower mast assembly and shut off all power before leaving machine.
- No riders are permitted on machine. Operator only in machine during operation.
- When performing welding operations at elevation, precautions must be taken to protect all machine components from contact with weld splatter or molten metal.
- Battery fluid is highly corrosive. Avoid contact with skin and clothing at all times.
- Charge batteries on in a well ventilated area.

Trip and Fall Hazards

- JLG recommends that the operator utilizes a fall/travel restraint system in the platform with a lanyard attached to an authorized lanyard anchorage point. For further information regarding fall protection requirements on JLG products, contact JLG.



- Before operating the machine, make sure all railing and gates are fastened in their proper position.

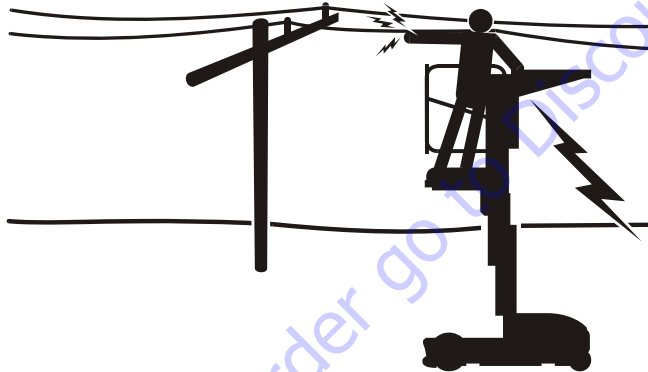


- Keep both feet firmly positioned on the platform floor at all times. Never use ladders, boxes, steps, planks, or similar items on platform to provide additional reach.

- Never use the mast assembly to enter or leave the platform.
- Use extreme caution when entering or leaving platform. Ensure that the mast assembly is fully lowered. Face the machine when entering or leaving the platform. Always maintain “three point contact” with the machine, using two hands and one foot or two feet and one hand at all times during entry and exit.

Electrocution Hazards

- This machine is not insulated and does not provide protection from contact or proximity to electrical current.



- Maintain distance from electrical lines, apparatus, or any energized (exposed or insulated) parts according to the Minimum Approach Distance (MAD) as shown in Table 1-1.
- Allow for machine movement and electrical line swaying.

Table 1-1. Minimum Approach Distances (M.A.D.)

Voltage Range (Phase to Phase)	MINIMUM APPROACH DISTANCE in Feet (Meters)
0 to 50 KV	10 (3)
Over 50KV to 200 KV	15 (5)
Over 200 KV to 350 KV	20 (6)
Over 350 KV to 500 KV	25 (8)
Over 500 KV to 750 KV	35 (11)
Over 750 KV to 1000 KV	45 (14)

NOTE: This requirement shall apply except where employer, local or governmental regulations are more stringent.

- Maintain a clearance of at least 10 ft (3 m) between any part of the machine and its occupants, their tools, and their equipment from any electrical line or apparatus carrying up to 50,000 volts. One foot additional clearance is required for every additional 30,000 volts or less.

SECTION 1 - SAFETY PRECAUTIONS

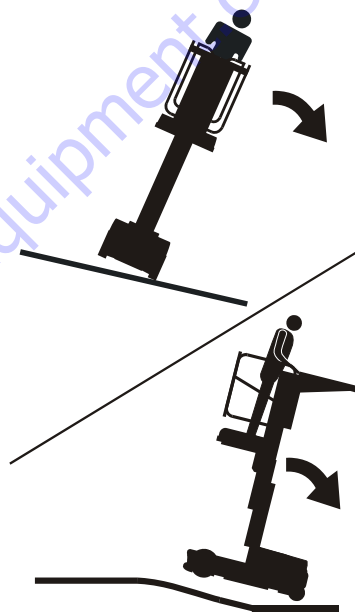
- The minimum approach distance may be reduced if insulating barriers are installed to prevent contact, and the barriers are rated for the voltage of the line being guarded. These barriers shall not be part of (or attached to) the machine. The minimum approach distance shall be reduced to a distance within the designed working dimensions of the insulating barrier. This determination shall be made by a qualified person in accordance with the employer, local, or governmental requirements for work practices near energized equipment

⚠ DANGER

DO NOT MANEUVER MACHINE OR PERSONNEL INSIDE PROHIBITED ZONE (MAD). ASSUME ALL ELECTRICAL PARTS AND WIRING ARE ENERGIZED UNLESS KNOWN OTHERWISE.

Tippling Hazards

- The operator should be familiar with the surface before driving. Do not exceed the allowable grade and side slope while driving.

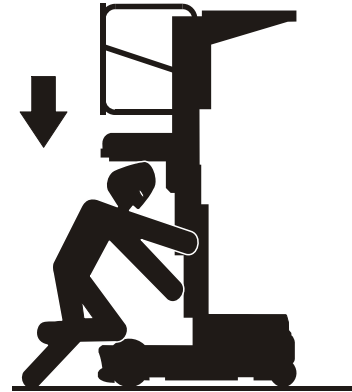


- Do not elevate platform or drive with platform elevated while on a slope, or on an uneven or soft surface.
- Before driving on floors, bridges, trucks, and other surfaces, check allowable capacity of the surfaces.

- Never exceed the maximum platform capacity. Distribute loads evenly on platform floor and material tray.
- Keep the chassis of the machine a minimum of 2 ft. (0.6m) from holes, bumps, drop-offs, obstructions, debris, concealed holes, and other potential hazards at the ground level.
- Never attempt to use the machine as a crane. Do not tie-off machine to any adjacent structure.
- Do not increase the platform size with unauthorized deck extensions or attachments, increasing the area exposed to wind will decrease stability.
- If mast assembly or platform is caught so that one or more wheels are off the ground, the operator must be removed before attempting to free the machine. Use cranes, forklift trucks, or other appropriate equipment to stabilize machine.

Crushing And Collision Hazards

- Personal protection equipment must be worn by all operating and ground personnel.
- Check work area clearances above, on sides, and bottom of platform while driving and lifting or lowering platform.



- During operation, keep all body parts inside platform railing.
- Always post a lookout when driving in areas where vision is obstructed.

SECTION 1 - SAFETY PRECAUTIONS

- Keep non-operating personnel at least 6 ft (1.8 m) away from machine during all driving operations.
- Limit travel speed according to conditions of ground surface, congestion, visibility, slope, location of personnel, and other factors causing hazards of collision or injury to personnel.
- Be aware of stopping distances in all drive speeds.
- Do not drive at high speeds in restricted or close quarters or when driving in reverse.
- Exercise extreme caution at all times to prevent obstacles from striking or interfering with operating controls and persons in the platform.
- Ensure that operators of other overhead and floor level machines are aware of the aerial work platform's presence. Disconnect power to overhead cranes.
- Warn personnel not to work, stand, or walk under a raised platform. Position barricades on floor as necessary.

1.4 LIFTING AND HAULING

General

- Never allow personnel in platform while lifting or hauling.
- This machine should not be towed in the event of emergency, malfunction, power failure, or loading/unloading. Lift only with a fork lift truck using the designated fork lift pockets in the machine's base frame.
- Ensure platform is fully retracted and completely empty of tools prior to lifting or hauling.
- When lifting machine with a forklift, position forks only at designated areas of the machine. Lift with a forklift of adequate capacity.
- Refer to the Machine Operation section of this manual for lifting information.

SECTION 2. PREPARATION AND INSPECTION

2.1 PERSONNEL TRAINING

The aerial platform is a personnel handling device, so it is necessary it be operated and maintained only by trained personnel.

Persons under the influence of drugs or alcohol or who are subject to seizures, dizziness or loss of physical control must not operate this machine.

Operator Training

Operator training must cover:

- 1.** Use and limitations of the controls in the platform and at the ground, emergency controls and safety systems.
- 2.** Control labels, instructions, and warnings on the machine.
- 3.** Rules of the employer and government regulations.
- 4.** Use of approved fall protection device.
- 5.** Enough knowledge of the mechanical operation of the machine to recognize a malfunction or potential malfunction.
- 6.** The safest means to operate the machine where overhead obstructions, other moving equipment, and obstacles, depressions, holes, drop-offs are present.
- 7.** Means to avoid the hazards of unprotected electrical conductors.
- 8.** Specific job requirements or machine application.

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SECTION 2 - PREPARATION AND INSPECTION

Training Supervision

Training must be done under the supervision of a qualified person in an open area free of obstructions until the trainee has developed the ability to safely control and operate the machine.

Operator Responsibility

The operator must be instructed that they have the responsibility and authority to shut down the machine in case of a malfunction or other unsafe condition of either the machine or the job site.

2.2 PREPARATION, INSPECTION, AND MAINTENANCE

Table 2-1 covers the periodic machine inspections and maintenance recommended by JLG Industries, Inc. Consult local regulations for further requirements for aerial work platforms.

The frequency of inspections and maintenance must be increased as necessary when the machine is used in a harsh or hostile environment, if the machine is used with increased frequency, or if the machine is used in a severe manner.

Table 2-1. Inspection and Maintenance Table

TYPE	FREQUENCY	PRIMARY RESPONSIBILITY	SERVICE QUALIFICATION	REFERENCE
Pre-Start Inspection	Before using each day; or whenever there's an Operator change.	User or Operator	User or Operator	Operator and Safety Manual
Pre-Delivery Inspection <i>(See Note)</i>	Before each sale, lease, or rental delivery.	Owner, Dealer, or User	Qualified JLG Mechanic	Service and Maintenance Manual and applicable JLG inspection form
Frequent Inspection	In service for 3 months or 150 hours, whichever comes first; or; Out of service for a period of more than 3 months; or Purchased used.	Owner, Dealer, or User	Qualified JLG Mechanic	Service and Maintenance Manual and applicable JLG inspection form
Annual Machine Inspection	Annually, no later than 13 months from the date of prior inspection.	Owner, Dealer, or User	Qualified JLG Mechanic <i>(Recommended)</i>	Service and Maintenance Manual and applicable JLG inspection form
Preventative Maintenance	At intervals as specified in Service and Maintenance Manual.	Owner, Dealer, or User	Qualified JLG Mechanic	Service and Maintenance Manual
NOTE: Inspection forms are available from JLG. Use the Service and Maintenance Manual to perform inspections.				

SECTION 2 - PREPARATION AND INSPECTION

2.3 PRE-START INSPECTION

The Pre-Start Inspection should include each of the following:

- 1. Cleanliness** – Check all surfaces for leakage (hydraulic oil or battery fluid) or foreign objects. Report any leakage to the proper maintenance personnel.
- 2. Decals and Placards** – Check all for cleanliness and legibility. Make sure no decals or placards are missing. Make sure all illegible decals and placards are cleaned or replaced. Refer to “Decal Installations” in Section 3.
- 3. Operation and Safety Manuals** – Make sure a copy of the Operator and Safety Manual, AEM Safety Manual (ANSI/CSA Spec only), and ANSI Manual of Responsibilities (ANSI/CSA Spec only) is enclosed in the weather resistant storage container.
- 4. Daily Walk-Around Inspection** – Refer to Section 2.4.
- 5. Battery** – Charge as required (refer to Section 3.5).
- 6. Hydraulic Oil** – Check the hydraulic oil level in the pump reservoir; add as required (refer to Section 6.3).
- 7. Function Check** – Check all machine controls for operation. (Refer to Section 2.5.)
- 8. Accessories/Options** – Refer to the Accessories section in this manual or to the accessory installed on the machine for specific inspection, operation, and maintenance instructions.

2.4 DAILY WALK-AROUND INSPECTION

Begin the Walk-Around Inspection at item one as noted on Figure 2-1. Continue around machine checking each item in sequence for the conditions listed in the following check list.

⚠ WARNING

TO AVOID POSSIBLE INJURY, BE SURE MACHINE POWER IS "OFF" DURING WALK-AROUND INSPECTION.

DO NOT OPERATE MACHINE UNTIL ALL MALFUNCTIONS HAVE BEEN CORRECTED.

NOTICE

DO NOT OVERLOOK VISUAL INSPECTION OF THE BASE FRAME UNDERSIDE. CHECK THIS AREA FOR OBJECTS OR DEBRIS WHICH COULD CAUSE EXTENSIVE MACHINE DAMAGE.

SECTION 2 - PREPARATION AND INSPECTION

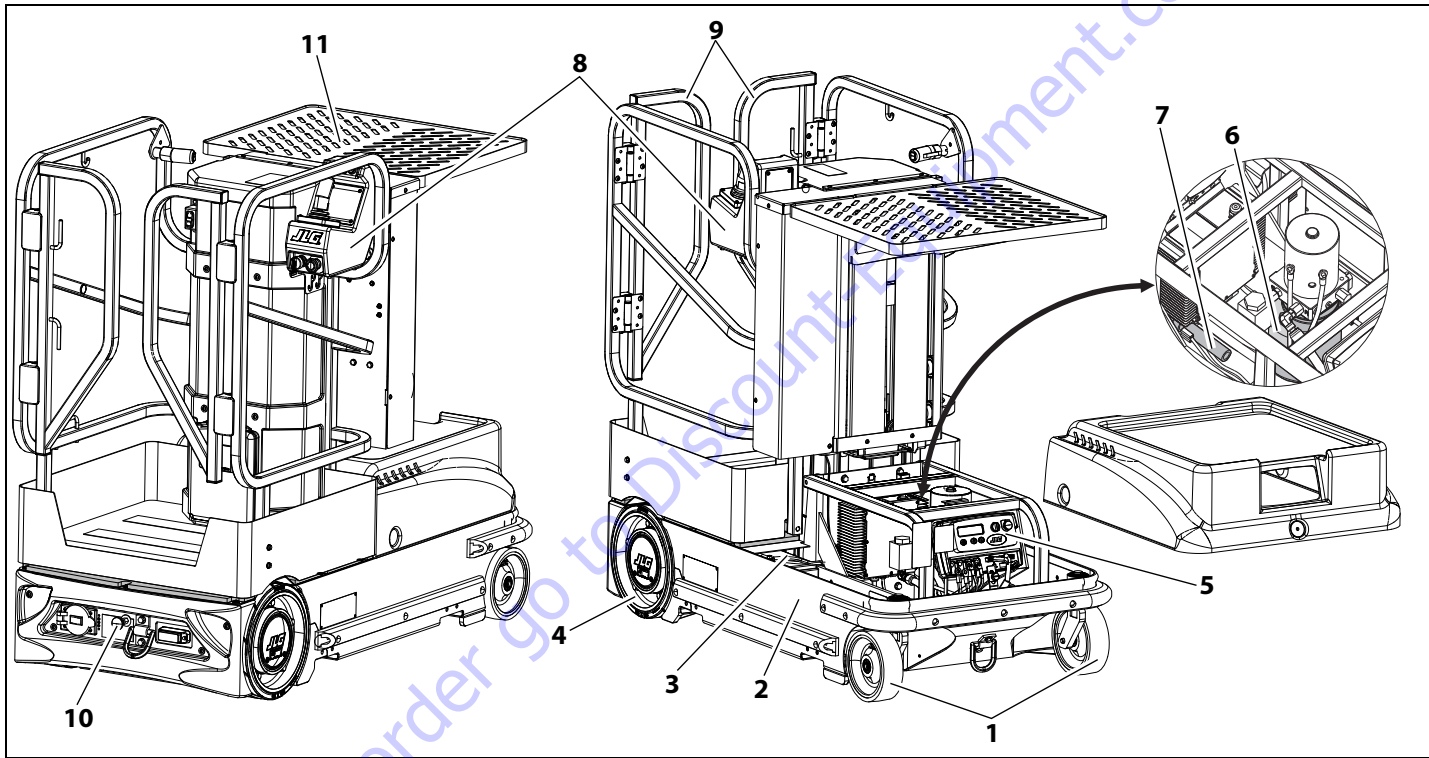


Figure 2-1. Daily Walk-Around Inspection

Walk-Around Inspection Components

Refer to Figure 2-1.

INSPECTION NOTE: *On all components, make sure there are no loose or missing parts, they are securely fastened, and no visible damage, leaks, or excessive wear exists in addition to any other criteria mentioned.*

- 1. Front Caster Wheels** - Check for any debris stuck to or around wheels.
- 2. Base Frame** - Check for loose wires or cables dangling below the base.
- 3. Batteries** (on each side of machine) - Not leaking; battery cables secure to posts; no corrosion.
- 4. Rear Drive Wheels** - Check for any debris stuck to or around wheels.
- 5. Ground Control Station** - Main Power Switch (Key) operable; placards secure and legible; emergency stop switch operates properly.
- 6. Motor/Pump/Reservoir Unit** - No evidence of hydraulic leaks.
- 7. Internal Manual Descent Control Valve** - Refer to Inspection Note.
- 8. Platform Control Console** - Platform control; placards secure and legible; emergency stop switch reset for operation; control markings legible.
- 9. Platform Assembly and Gate** - Platform railings; entry gate in proper working order, closing properly.
- 10. Remote Manual Descent (If Equipped)** - Refer to Inspection Note.
- 11. Power Tray (If Equipped)** - No evidence of hydraulic leaks.

SECTION 2 - PREPARATION AND INSPECTION

2.5 FUNCTION CHECK

Once the Walk-Around Inspection is complete, perform a function check of all systems in an area free of overhead and ground level obstructions.

NOTE: Refer to Section 3 for more specific operating instructions.

WARNING

IF THE MACHINE DOES NOT OPERATE PROPERLY, TURN OFF THE MACHINE IMMEDIATELY. REPORT THE PROBLEM TO THE PROPER MAINTENANCE PERSONNEL. DO NOT OPERATE THE MACHINE UNTIL IT IS DECLARED SAFE FOR OPERATION.

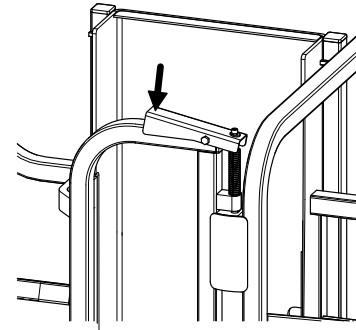
Function Check Items

1. From the ground controls with no load in the platform:
 - a. Operate ground control functions, platform lift up and lift down.
 - b. Ensure all machine functions are disabled when Emergency Stop Button is activated (pressed in).
 - c. Raise the platform approximately 1 in or more. Ensure the gate alarm will sound when either platform gate is opened.
 - d. Ensure Manual Descent, located under hood, is functioning properly. Remote Manual Descent (if equipped) is located at rear of machine next to the charger socket.
2. From the platform control console:
 - a. Ensure the control console is properly mounted and secure.
 - b. Raise and lower platform 2 ft to 3 ft (0.61 m to 0.92 m) several times. Check for smooth lifting and lowering of platform.
 - When the platform is elevated, visually inspect the mast sections, slide pads, mast chains, sequencing cables, platform control and power cables (on side of mast). Ensure power cables are properly tensioned and seated in sheaves and rotating freely.
 - c. Operate all functions. Check all limit, cut-out, and enable switches are functioning properly:
 - **Machine Brakes** - Drive the machine on a grade (**do not exceed the rated gradeability**) and stop to ensure the brakes hold.

SECTION 2 - PREPARATION AND INSPECTION

- **Tilt Warning Limit** - With the platform completely lowered, drive the machine onto a surface with a tilt of more than 1.5° in any direction (**do not exceed rated gradeability**). The machine will indicate a tilt condition if any attempt is made to elevate the platform.
 - **Drive Speed Reduction Limit** - When platform is elevated more than 1.5 to 2 ft (0.5 m) above the stowed position, drive speed is cut to 1/4 of platform lowered drive speed.
 - **Platform Joystick Enable, Footswitch Enable, and Left Hand Lift Enable** - The machine will not operate (drive or lift) unless all these switches are pressed and held during drive or lift operation.
- d. **Platform Gate Open Limit** - If the machine is equipped with a Platform Gate Alarm, an alarm will sound and all lifting and driving functions will stop if either or both gates are opened once the platform is raised approximately 1 in above the fully stowed position.

(Australian Spec machines also include a platform gate lock/release lever mechanism on top of each gate that must be pressed down to open the platform gate. Check that the lock/release on each gate latches properly when gate is closed and releases when the handle lever is depressed.)



**Platform Gate Lock/Release Lever
(Australian Spec. Machines Only)**

SECTION 2 - PREPARATION AND INSPECTION

- e.** Ensure all machine functions are disabled when the Emergency Stop Button is activated (pressed in).
- f.** Ensure the Object Detection System (if equipped) functions properly (refer to Section 3):
 - Raise the platform to a height of 24 in (61 cm) or more.
 - Have someone on the ground place an object of 15 lb (7 kg) or greater on the object detection pad.
 - Attempt to lower the platform. If the object detection system is functioning properly, the horn should sound three short blasts, and the platform will not lower.
 - Have the person on the ground remove the weight. Reset the Object Detection System by pressing the horn button once. The platform lift down function should now operate.
- g.** Ensure the Power Tray (if equipped) functions properly by raising and lowering the tray several times. Check for smooth operation.

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SECTION 3. MACHINE OPERATION

3.1 GENERAL

NOTICE

THE MANUFACTURER HAS NO DIRECT CONTROL OVER MACHINE APPLICATION AND OPERATION. THE USER AND OPERATOR ARE RESPONSIBLE FOR CONFORMING WITH GOOD SAFETY PRACTICES.

This section provides the necessary information needed to understand control function and operation.

3.2 MACHINE DESCRIPTION

This machine is an electric powered self-propelled machine with an aerial work platform and attached adjustable material handling tray, mounted to an elevating mast mechanism. The personnel lift's intended purpose is to provide personnel access to areas above ground level to allow placing and removing of stock from storage or display areas.

The primary control console is located in the platform. From the Platform Control Console the operator can drive the machine and raise or lower the platform. The machine can be driven on a smooth, firm, and level surface from an elevated platform position. Additionally, operators can activate the material Power Tray (if equipped) and horn.

The Ground Control Station is to be used during machine power-up, maintenance, function checks, or in case of emergency, should the operator in the platform be unable to lower the platform.

SECTION 3 - MACHINE OPERATION

3.3 MACHINE OPERATION

Getting Started

The following conditions must be met before the machine can be operated from either the Ground or Platform Controls:

- Batteries contain enough voltage to operate. Low Battery warning not indicated on Ground Control Station.
- The Main Power Selector Switch on the Ground Control Station must be set for either Ground Control Mode or Platform Control Mode.
- Platform Control Console On/Off Power Switch (Key) must be set to ON.
- Both Emergency Stop Switches, Ground and Platform Control must be in the RESET position (out).
- The Machine Status LCD Screen on the Ground Control Station indicates normal operating conditions when machine is powered up.
- Both platform swing-in entry gates must be closed to operate machine.

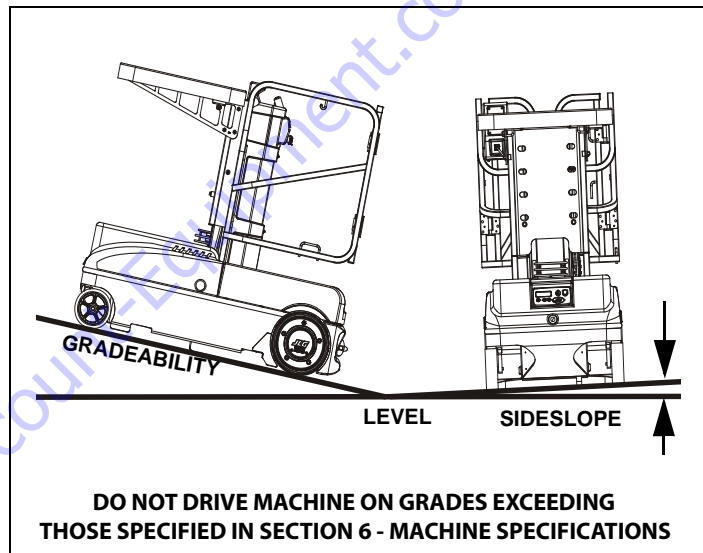
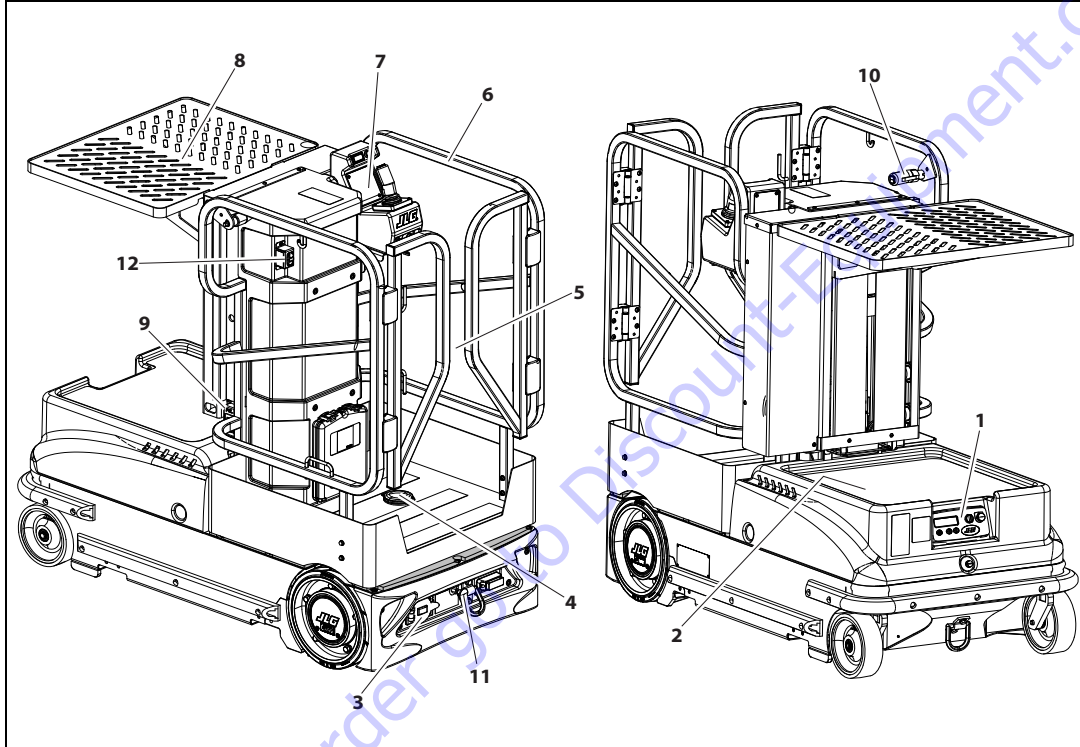


Figure 3-1. Grade and Side Slope



1. Ground Control Station (Module)
2. Internal Platform Manual Descent Valve (Under Hood)
3. Battery Charger AC Receptacle and Charging Status LED Indicators
4. Platform Enable Footswitch
5. Platform Entry Gate
6. Platform
7. Platform Control Console
8. Material Handling Tray - Power Tray (shown) or Manual Tray
9. Programmable Security Lock (PSL) (If Equipped)
10. Left Hand Lift
11. Remote Manual Descent (If Equipped)
12. Power Tray Switch

Figure 3-2. Machine Operating Component Locations

SECTION 3 - MACHINE OPERATION

3.4 HOOD (CARRY DECK)

Removal

1. To remove the hood, loosen the attach screw on the front of the hood.
2. Lift the hood at the front to clear the rubber sealing gasket on the base frame and slide the hood forward while lifting up to completely remove it from the machine.

Installation

1. Set hood down into the hood gasket on the top of the frame and slide it rearward. Be certain the rear hold-down bracket engages the hood support underneath the hood.
2. Tighten the hood attach screw at the front of the hood.



DO NOT ALLOW ANY PERSONNEL TO RIDE ON THE CARRY DECK HOOD.

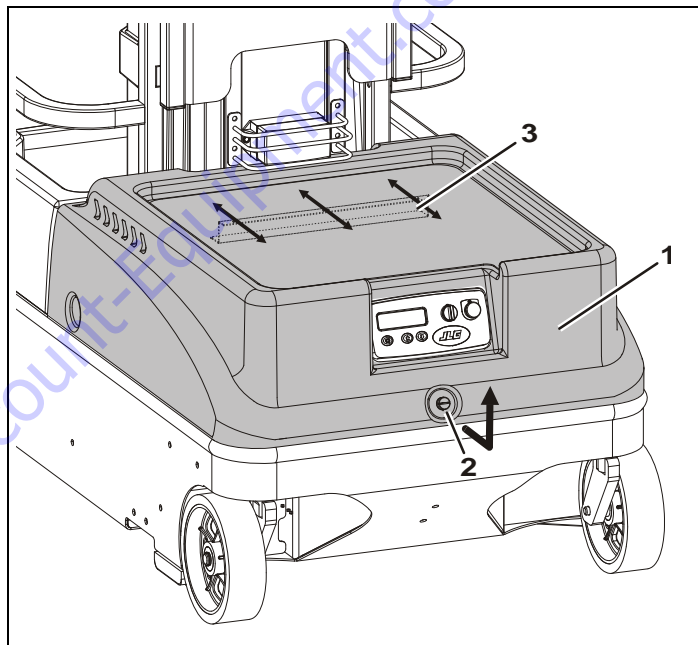


Figure 3-3. Hood (Carry Deck) Removal

1. Hood (Carry Deck)
2. Attach Screw
3. Rear Hold-Down Bracket -Located Under Hood - Slides Under Hood Support

3.5 BATTERY CHARGING

Battery Low Voltage Warning Indicators

The Platform Control Console and Ground Control Station indicate battery low voltage at three Warning Levels.

Table 3-1. Battery Low Voltage Warning Indicators

WARNING LEVEL	INDICATOR LOCATION		RESULT	ACTION REQUIRED TO CLEAR FAULT
	PLATFORM CONTROL LED	GROUND CONTROL LCD		
LEVEL 1			<ul style="list-style-type: none"> • 3 LEDs/BARS Flashing with an audible beep. • Machine will Operate - No Control Functions Locked Out. 	Charge batteries to a level of four LEDs/BARS or more before operating.
LEVEL 2			<ul style="list-style-type: none"> • 2 LEDs/BARS Flashing with an audible beep. • Platform Lift-UP Function is Locked Out. 	Charge batteries for a minimum of four continuous hours or eight LEDs/BARS lit before operating. (Refer to note.)
LEVEL 3			<ul style="list-style-type: none"> • 1 LED/BAR Flashing with an audible beep. • Drive and Platform Lift-UP Functions Locked Out. 	Charge batteries for a minimum of four continuous hours or eight LEDs/BARS lit before operating. (Refer to note.)

NOTE: To maximize battery life, it is recommended that the factory supplied batteries be charged continuously for a minimum of four hours or until eight bars are lit on the ground station LCD Display before operating the machine. When drained to Warning Level 2 or 3, batteries must be charged until eight bars are lit on the ground station LCD display to clear the fault code.

SECTION 3 - MACHINE OPERATION

To Charge Batteries

This machine is equipped with an AC voltage input/DC voltage output battery charger. The charger automatically terminates charging when the batteries reach full capacity.

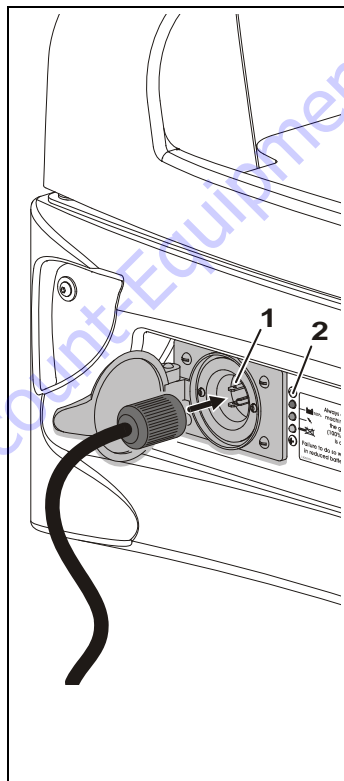
NOTE: *The platform drive function is disabled when the battery charger is plugged into an AC receptacle.*

⚠ WARNING

LEAD ACID BATTERIES MAY GENERATE EXPLOSIVE HYDROGEN GAS DURING NORMAL OPERATION. KEEP SPARKS, FLAMES, AND SMOKING MATERIALS AWAY FROM BATTERIES. PROVIDE ADEQUATE VENTILATION DURING CHARGING. NEVER CHARGE A FROZEN BATTERY. STUDY ALL BATTERY MANUFACTURERS' SPECIFIC PRECAUTIONS SUCH AS RECOMMENDED RATES OF CHARGE AND REMOVING OR NOT REMOVING CELL CAPS WHILE CHARGING.

1. Park machine in a well ventilated area near an AC voltage electrical wall outlet.

NOTE: *To maximize battery life, it is recommended batteries be charged continuously for a minimum of four hours when drained to Warning Levels 2 and 3. Refer to Table 3-1.*



2. Always use a grounded AC outlet. Connect charger to an outlet that has been properly installed and grounded in accordance with all local codes and ordinances. A grounded outlet is required to reduce risk of electric shock – do not use ground adapters or modify plug. When using an extension cord, avoid excessive voltage drops by using a grounded 3-wire 12 AWG cord.

(1) Charger AC Input Receptacle located on the rear bumper cover of the machine.

(2) Battery Charger Status LED Indicators.

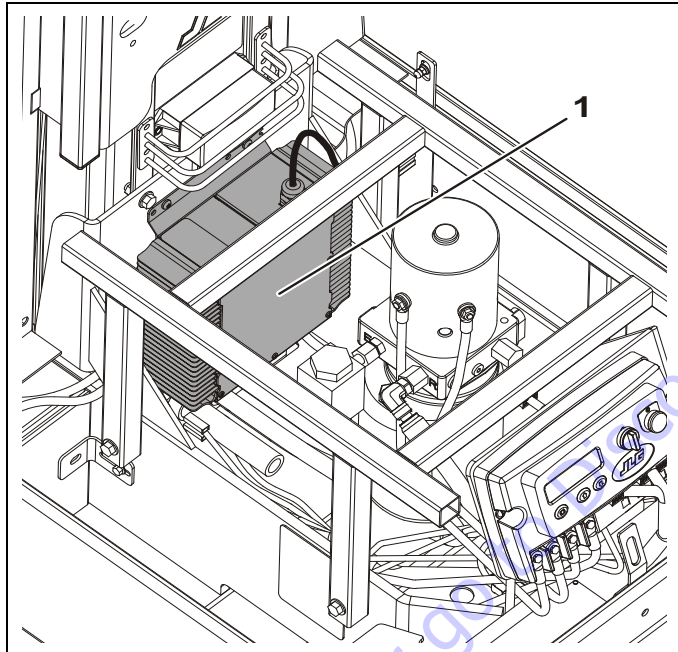


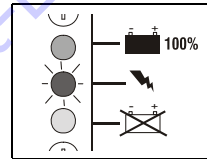
Figure 3-4. Battery Charger Location

1. Battery Charger

Battery Charging Status Indicators

The battery charging status indicators are located just above the Charger AC input receptacle on the center cover section at the rear of the machine.

1. When first plugged in, the charger will automatically turn on and go through a short LED indicator self-test (all LEDs will flash in an up-down sequence for two seconds), then charging will begin.



CHARGING

**YELLOW(MIDDLE) LED ON
Charge Incomplete**

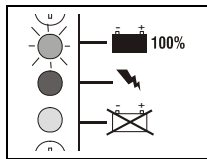
2. The YELLOW 'CHARGING' LED will turn on and a trickle current will be applied until a minimum voltage is reached.

Once a minimum battery voltage of 2 volts per cell is detected, the charger will enter the bulk charging constant-current stage and the YELLOW 'CHARGING' LED will remain on. The length of charge time will vary by how large and how depleted the battery pack is, the input voltage (the higher, the better), and ambient temperatures (the lower, the better). If the input AC

SECTION 3 - MACHINE OPERATION

voltage is low (below 104VAC), then the charging power will be reduced to avoid high input currents. If the ambient temperature is too high, then the charging power will also be reduced to maintain a maximum internal temperature.

3. When the GREEN 'CHARGED' LED turns on, the batteries are completely charged.

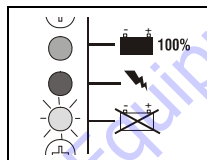


CHARGE COMPLETE

**GREEN (TOP) LED ON
100% Complete**

The charger may now be unplugged from AC power (always pull on plug and not cord to reduce risk of damage to the cord). If left plugged in, the charger will automatically restart a complete charge cycle if the battery pack voltage drops below a minimum voltage or 30 days has elapsed.

4. If a fault occurred anytime during charging, a fault indication is given by flashing the RED 'FAULT' LED with a code corresponding to the error.



CHARGING PROBLEM

**RED (BOTTOM) LED ON
See Flash Codes following**

There are several possible conditions that generate errors. Some errors are serious and require human intervention to first resolve the problem and then to reset the charger by interrupting AC power for at least 10 seconds. Others may be simply transient and will automatically recover when the fault condition is eliminated. To indicate which error occurred, the RED 'FAULT' LED will flash a number of times, pause, and then repeat.

[1 FLASH] Battery Voltage High: auto-recover. Indicates a high battery pack voltage.

[2 FLASH] Battery Voltage Low: auto-recover. Indicates either a battery pack failure, battery pack is not connected to charger, or battery volts per cell is less than 0.5 VDC. Check the battery pack and battery pack connections.

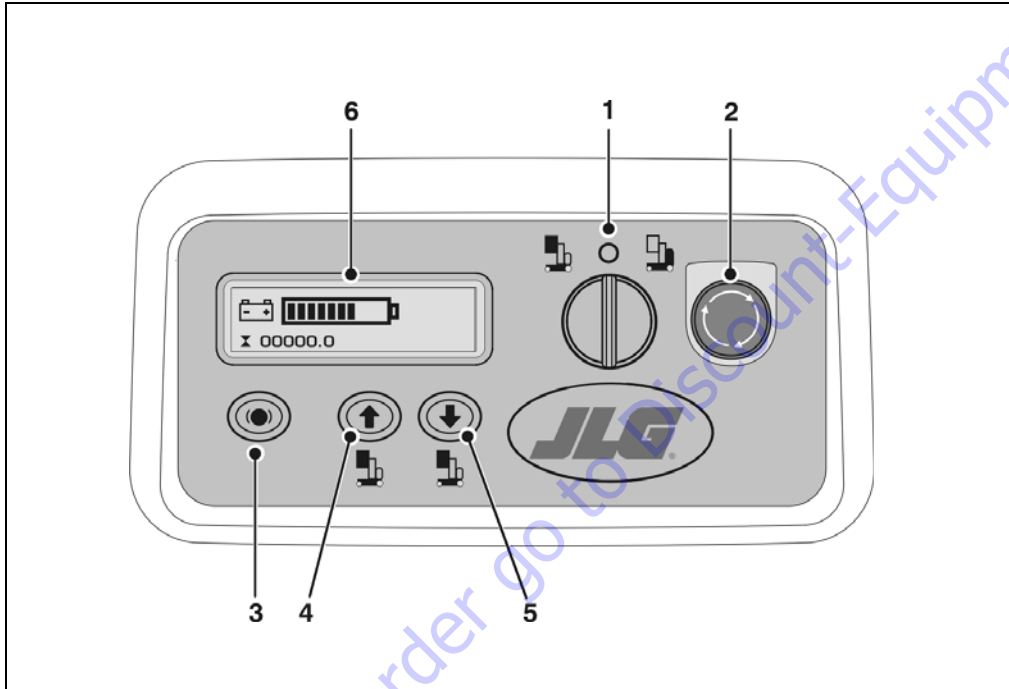
[3 FLASH] Charge Time-out: Indicates the battery did not charge within the allowed time. This could occur if the battery is of a larger capacity than the algorithm is intended for. It can also occur if the battery pack is damaged, old, or in poor condition. In unusual cases it could mean charger output is reduced due to high ambient temperature.

[4 FLASH] Check Battery: Indicates the battery pack could not be trickle charged up to the minimum 2 volts per cell level required for the charge to be started. This may also indicate that one or more cells in the battery pack are shorted or damaged.

[5 FLASH] Over-Temperature: auto-recover. Indicates charger has shutdown due to high internal temperature which typically indicates there is not sufficient airflow for cooling – see step 1 of Installation Instructions. Charger will restart and charge to completion if temperature is within accepted limits.

[6 FLASH] QuiQ Fault: Indicates that the batteries will not accept charge current, or an internal fault has been detected in the charger. This fault will nearly always be set within the first 30 seconds of operation. Once it has been determined that the batteries and connections are not faulty and Fault 6 is again displayed after interrupting AC power for at least 10 seconds, the charger must be brought to a qualified service depot.

3.6 GROUND CONTROL STATION



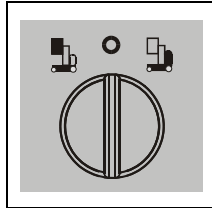
1. Platform/Off/Ground Selector Switch
2. Emergency Stop/Shut Down Button
3. Brake Release Button
4. Platform Up Button
5. Platform Down Button
6. Machine Status LCD Display

NOTE: The Ground Control Station Module is fully programmable. For operator level programmability, refer to Section 6.

NOTE: If equipped with Programmable Security Lock (PSL), refer to Section 6.

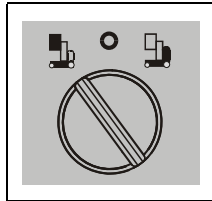
Figure 3-5. Ground Control Station

Platform/Off/Ground Selector Switch



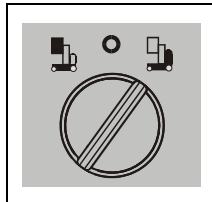
POWER OFF

Turn to this position to power machine off after use.



PLATFORM CONTROL MODE

When set to this position the machine can be operated from the platform control console.

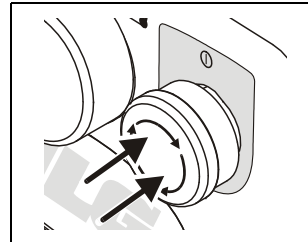


GROUND CONTROL MODE

When set to this position the machine can be operated from the ground control station.

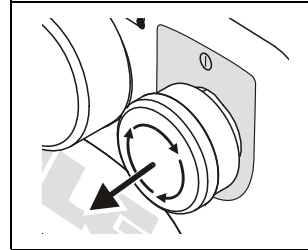
NOTE: SLEEP MODE - During operation if no control functions have been activated for 5 minutes (default programmable setting), the ground control module will power down the machine to conserve battery power. Cycle power back on using either the main power selector switch (key) or the emergency stop/power down button either on the platform controller or on the ground control station.

Emergency Stop/Shut Down Button



POWER OFF

PUSH IN - To Engage Emergency Stop



POWER ON

TURN CLOCKWISE and RELEASE to RESET Emergency Stop

SECTION 3 - MACHINE OPERATION

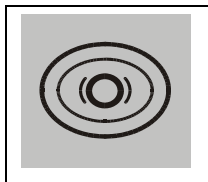
Brake Release Button

The machine must be POWERED ON and the Ground Control Station set to the GROUND CONTROL MODE to manually release the brakes. The brakes only DISENGAGE (electrically) when the joystick control is moved off center during driving or are manually DISENGAGED (electrically) using the Brake Release Button on the front of the Ground Control Station.

NOTE: *If the machine's batteries are completely depleted of electrical charge, the brakes cannot be released manually.*

⚠ CAUTION

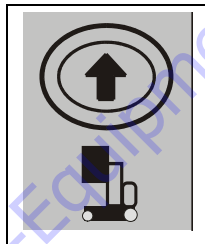
DO NOT MANUALLY DISENGAGE THE BRAKES UNLESS MACHINE IS SITTING ON A LEVEL SURFACE OR MACHINE IS FULLY RESTRAINED.



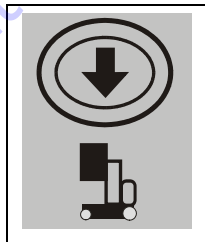
PUSH and RELEASE -
TO DISENGAGE Brakes

PUSH and RELEASE AGAIN -
TO ENGAGE Brakes

Platform Up and Down Buttons

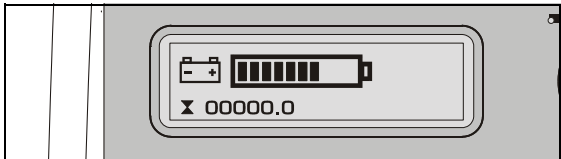


PUSH IN -
TO ELEVATE Platform
RELEASE -
TO STOP ELEVATING



PUSH IN -
TO LOWER Platform
RELEASE -
TO STOP LOWERING

Machine Status LCD Display



At power-up and during operation, the LCD display on the Ground Control Module displays the current machine operating status. The following illustration explains the symbol indications.

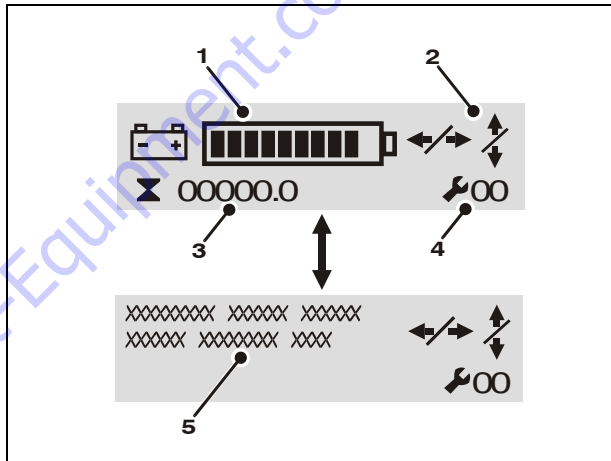


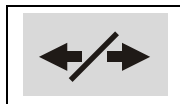
Figure 3-6. LCD Display Symbols

1. Battery Charge Indicator (BCI)
2. Function Display or Function Disabled Indicators
3. Hour Meter Display
4. Fault Code Indicator (Refer to Table 3-2)
5. Fault Text Message Display (Refer to Note)

NOTE: When a Fault Code is indicated the LCD screen will alternate between the text and symbol display modes.

SECTION 3 - MACHINE OPERATION

In the LCD Display Symbols (refer to Figure 3-6., item 2), the Function Display or Function Disabled Indicators will vary as shown following:



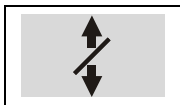
DRIVE Disabled



LIFT UP Disabled



LIFT DOWN Disabled



Both LIFT UP and LIFT DOWN Disabled



Drive Speed Cut-Back (Turtle) Mode Engaged (When Platform is Elevated)



Battery Charger (AC) Plugged In

Tilt Alarm Warning

The Ground Control Station LCD screen flashes a fault code and gives an audible warning. The LEDs on the platform control console also flash during tilt warning. Refer to Table 3-2.

⚠ WARNING

THE GROUND CONTROL STATION CONTAINS A 1.5 DEGREE TILT ALARM. IF THE TILT ALARM HAS BEEN ACTIVATED, THE PLATFORM WILL NOT ELEVATE. ALSO IF THE TILT ALARM HAS BEEN ACTIVATED WHEN THE PLATFORM IS ELEVATED, THE DRIVE AND LIFT UP FUNCTIONS WILL BE DISABLED UNTIL THE PLATFORM IS COMPLETELY LOWERED AND DRIVEN OFF THE TILT CONDITION.

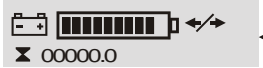
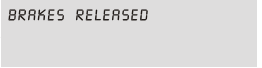




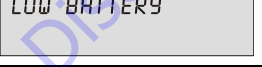
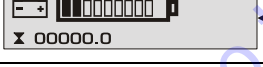
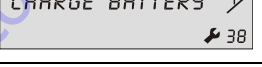
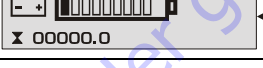



LCD Display Fault Conditions

Table 3-2 following shows common LCD display fault indicators which may occur during operation and are usually caused by either an error in machine operation or a work area condition. These fault conditions can usually be corrected by the operator and do not require a qualified mechanic to repair:

NOTICE

AFTER A FAULT CONDITION IS CORRECTED THE MACHINE POWER MAY NEED TO BE RECYCLED TO RESET THE GROUND CONTROL STATION.

Table 3-2. LCD Display - Operating Fault Conditions

FAULT CODE	PLATFORM LEDs FLASHING	LCD SYMBOL SCREEN	LCD TEXT SCREEN	FAULT DESCRIPTION/ MACHINE CONDITION	TO CORRECT PROBLEM
—	—			Brakes Released - <i>(DRIVE Disabled)</i>	To Engage Brakes - Press Brake Release Button on Ground Control Station
—	—		—	Charger AC Plugged In DRIVE Disabled	Unplug Charger AC Power Cord
—	—			Programmable Security Lock Password	Enter Code on PSL Keypad to Power-Up Machine
—	3			Low Battery - <i>(Warning Level 1)</i>	Charge Batteries to Four (4) Bars or more on Indicator.
—	2			Charge Battery - <i>(LIFT UP Disabled)</i> <i>(Warning Level 2)</i>	Charge Batteries a Minimum of Four (4) Hours or eight (8) LEDs/BARS lit.
—	1			Charge Battery - <i>(LIFT UP/DRIVE Disabled)</i> <i>(Warning Level 3)</i>	Charge Batteries a Minimum of Four (4) Hours or eight (8) LEDs/BARS lit.
4	3			Tilt Condition <i>(Platform Elevated)</i> DRIVE and Lift UP Disabled	Lower the Platform and Drive off the Tilt Condition

SECTION 3 - MACHINE OPERATION

Table 3-2. LCD Display - Operating Fault Conditions (Continued)



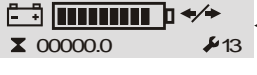
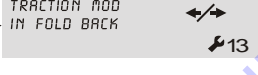

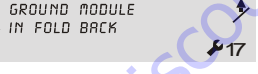



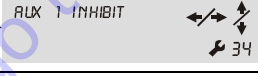







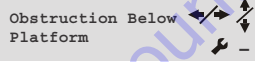
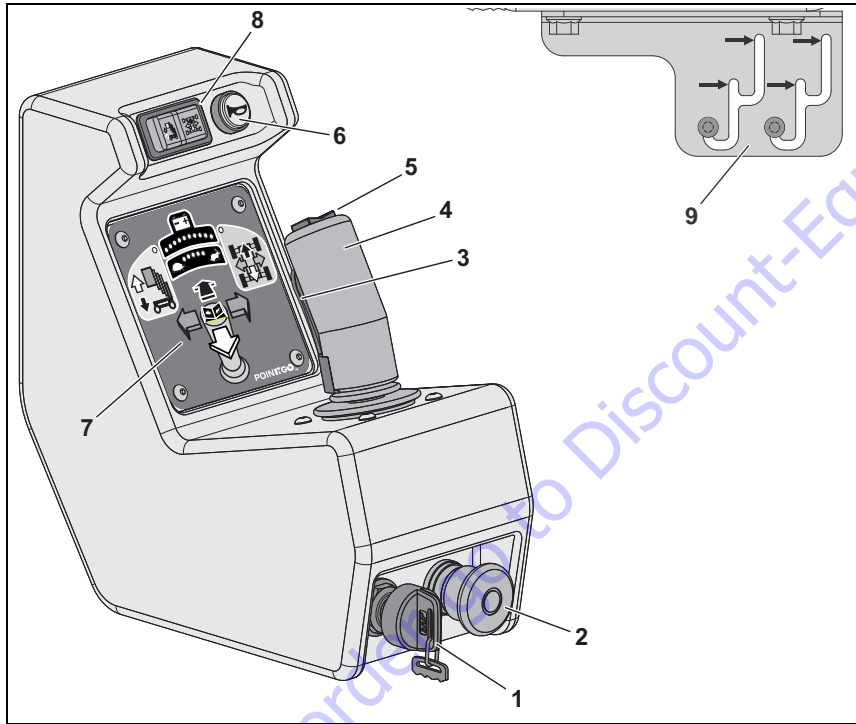
FAULT CODE	PLATFORM LED _s FLASHING	LCD SYMBOL SCREEN	LCD TEXT SCREEN	FAULT DESCRIPTION/ MACHINE CONDITION	TO CORRECT PROBLEM
6	8			Drive Motor Brush Wear Warning (Counts down 25 hrs. of DRIVE operation remaining to a 10 sec. shut down mode)	Drive Motor Brushes Require Service Replacement - (See Section 6.7 on page 6-19 for further Instructions)
13	6			Traction Module Over Temperature (DRIVE Disabled)	Allow Drive System Traction Module to Cool Before Operating (Caused by extreme temperature)
17	7			Ground Control Module Over Temperature (Machine Stopped)	Allow Ground Control Module to Cool Before Operating - (Caused by extreme temperature)
32	7			Pump Motor Over Current (LIFT UP Disabled)	Platform Load Over Capacity
34	—			Aux. #1 - Left Hand Enable Open	Press on Left Hand Enable during machine operation
35	—			Aux. #1 - Left Hand Enable depressed during Machine Power-up	Do Not Press on Left Hand Enable during Machine Power-Up

Table 3-2. LCD Display - Operating Fault Conditions (Continued)

FAULT CODE	PLATFORM LEDs FLASHING	LCD SYMBOL SCREEN	LCD TEXT SCREEN	FAULT DESCRIPTION/ MACHINE CONDITION	TO CORRECT PROBLEM
36	—			Aux. # 2 - Platform Gate Open While Elevated	Close Platform Gate
37	—			Aux. # 2 - Platform Gate Open While Elevated During Machine Power-up	Do Not Have Platform Gate Open During Machine Power-up
—	5			>20 lb Detected on Object Sensing Pad	Remove Object From Sensing Pad
<p>NOTE: The fault conditions shown in this table are fault conditions that the operator may be able to resolve. Should a fault occur that cannot be corrected at the operator's level, the problem must be referred to a mechanic qualified to repair this model of JLG Lift. A complete table of fault codes is listed in the Troubleshooting section of the Service and Maintenance Manual.</p>					

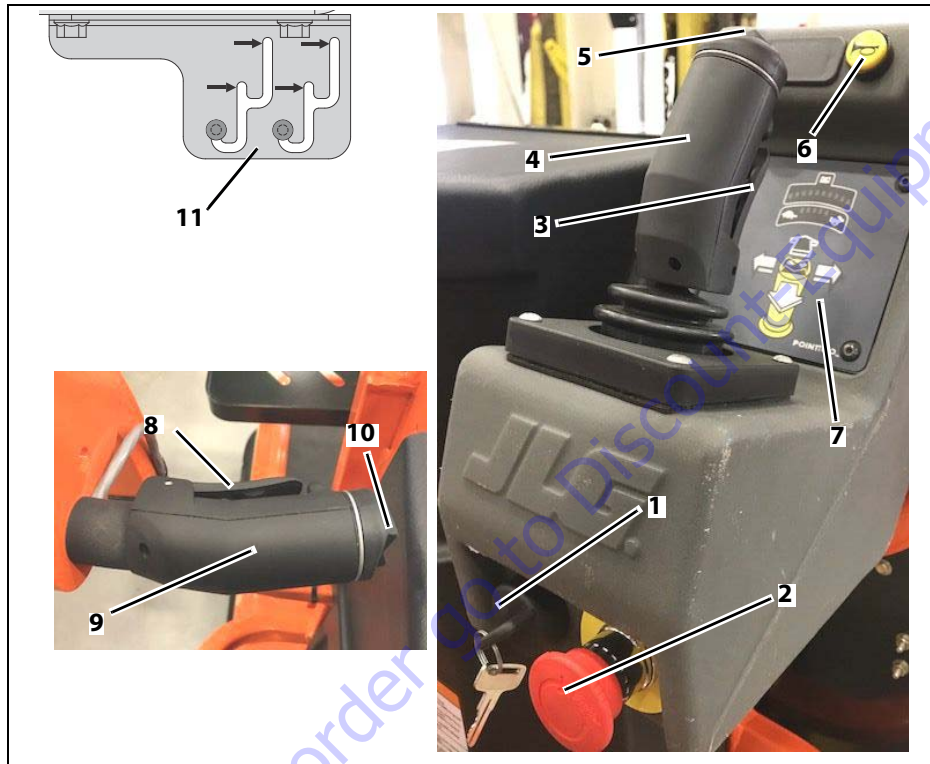
3.7 PLATFORM CONTROL CONSOLE



1. On/Off Key Switch
2. Emergency Stop/Shut Down Switch
3. Function Enable Lever
4. Multifunction Joystick Control
5. Drive Speed Setting Selector Switch
6. Horn Button
7. Platform Control Display Panel
8. Drive/Lift Mode Selector Switch
9. Console Mounting Bracket -
3 Position Height Adjustment
(On Bottom of Console Box)

NOTE: This platform control console uses the Multi-function Joystick Control (4) for both lift and drive functions. The Drive/Lift Mode Selector Switch (8) selects the appropriate function. The joystick lever and footswitch must be engaged to drive or lift.

Figure 3-7. Platform Control Console (Prior to SN 0130032507)



1. On/Off Key Switch
2. Emergency Stop/Shut Down Switch
3. Function Enable Lever
4. Single Function Joystick Control
5. Drive Speed Setting Selector Switch
6. Horn Button
7. Platform Control Display Panel
8. Left Hand Enable Lever
9. Left Hand Lift
10. Platform Lift Up/Down Switch
11. Console Mounting Bracket - 3 Position Height Adjustment (If Equipped) (On Bottom of Console Box)

NOTE: This platform control console uses the Single Function Joystick Control to control drive functions. The Left Hand Lift, which controls platform lift up/down functions, when engaged with the Single Function Joystick lever and the footswitch, allows for simultaneous lift and drive functions.

Figure 3-8. Platform Control Console (SN 0130032507 to Present)

SECTION 3 - MACHINE OPERATION

General

NOTE: **SLEEP MODE** - During operation if no control functions have been activated for 10 minutes (default programmable setting), the ground control module will power the machine down to conserve battery power. Cycle power back on using either the main power selector switch (key) or the emergency stop/power down button either on the platform controller or on the ground control station.

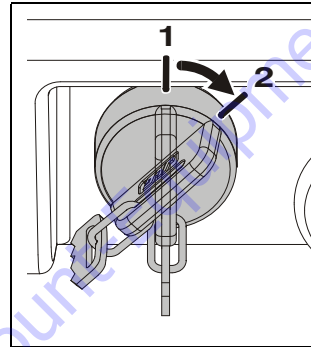
The following conditions must be met before the machine can be operated from the platform control console:

- Ground Control Station - Main Power Selector Switch must be set to PLATFORM CONTROL MODE.
- Ground Control Station - Emergency Stop/Shut Down Button must be in the RESET position (POWER ON).
- If equipped with the PSL (Programmable Security Lock) it must be set to the ON position.

NOTE: Refer to Section 3.13 for PSL instructions.

- Both platform entry gates are equipped with an interlock switch and must be completely closed before the drive and platform lift functions can be operated.

Platform On/Off Key Switch



At the Platform Control Console - Set the On/Off Key Switch to the ON position (2) to operate machine.

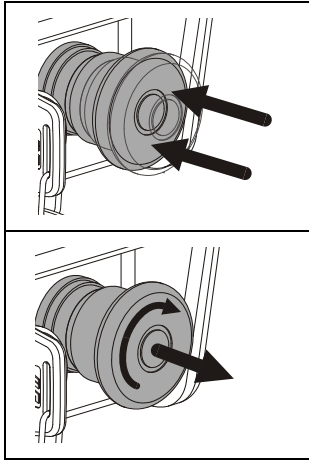
1. OFF Position
2. ON Position

Set the ON/OFF Key Switch to the OFF position to power machine down.

If necessary, when machine is not in use, remove key from platform key switch to disable machine from unauthorized use.

Platform Emergency Stop/Shut Down Button

NOTE: The Platform and Ground Control Station Emergency Stop/Shut Down Buttons must both be in the RESET position to operate machine.



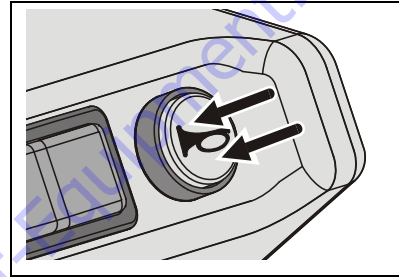
POWER OFF

PUSH IN -
TO ENGAGE
Emergency Stop

POWER ON

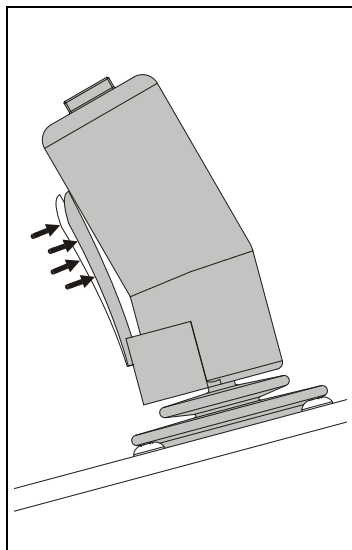
TURN CLOCKWISE
and RELEASE to
RESET Emergency Stop

Horn Button



When the machine is powered on, pressing this button will sound the Horn.

Joystick Function Enable Lever



Joystick Function Enable Lever

The joystick enable lever on the front of the joystick control on the platform control console must be engaged and held in during any joystick operation.

Note:

The platform function enable footswitch and Left Hand Lift (if equipped) must also be pressed and held simultaneously with the joystick enable lever.

Multifunction Joystick Control (Prior to SN 0130032507)

The multifunction joystick control on the platform control console operates the following machine functions on machines with a Drive/Lift Mode Selector Switch:

- Drive/Steer
- Lift Up and Down

NOTE: Use the Drive/Lift Mode Selector Switch to select which function the joystick will operate. The selected operating mode will only remain active for 5 seconds if the function is not operated.

Remember to press and hold the joystick function enable lever and platform function enable foot switch simultaneously in order to operate any joystick functions.

NOTE: Machines with a Drive/Lift Mode Selector Switch cannot drive and lift simultaneously.

⚠ WARNING

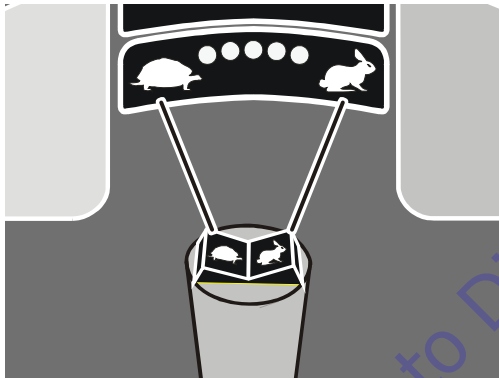
WHEN THE PLATFORM IS ELEVATED, DRIVE ONLY ON A SMOOTH, FIRM, AND LEVEL SURFACE. REFER TO FIGURE 3-1., GRADE AND SIDE SLOPE.

Single Function Joystick Control (SN 0130032507 to Present)

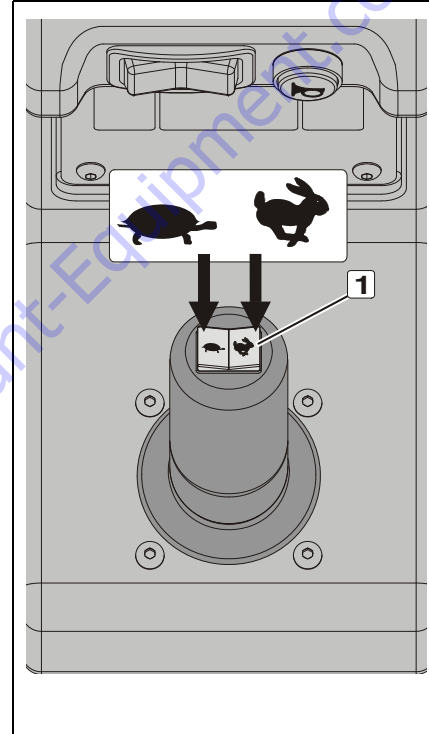
The single function joystick control on the platform control console operates drive/steer functions on machines with a Left Hand Lift that controls lift up and down. Engage the enable lever, footswitch, and left hand enable lever simultaneously to drive and steer. A timeout will occur after five seconds if enable is engaged and no function is selected.

Drive Speed Setting Selector Switch

NOTE: When the platform is elevated, the maximum drive speed is automatically cut back to 25%. The Ground Control Module LCD screen will display a turtle when in this mode, Refer to Machine Status LCD Display in this section.



Drive Speed Indicator



Drive Speed Setting Selector Switch

1. Selector Switch (on top of platform control console joystick)



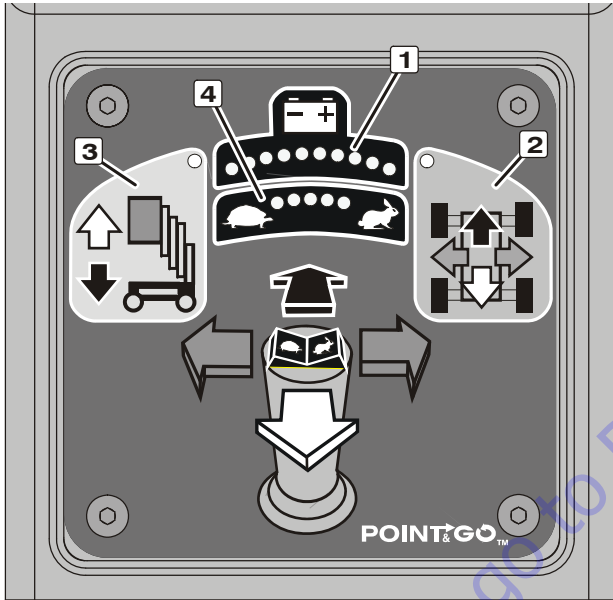
Each PRESS on this side of the switch will DECREASE maximum drive speed. (FEWER LEDs Lit up on the Drive Speed Indicator.)



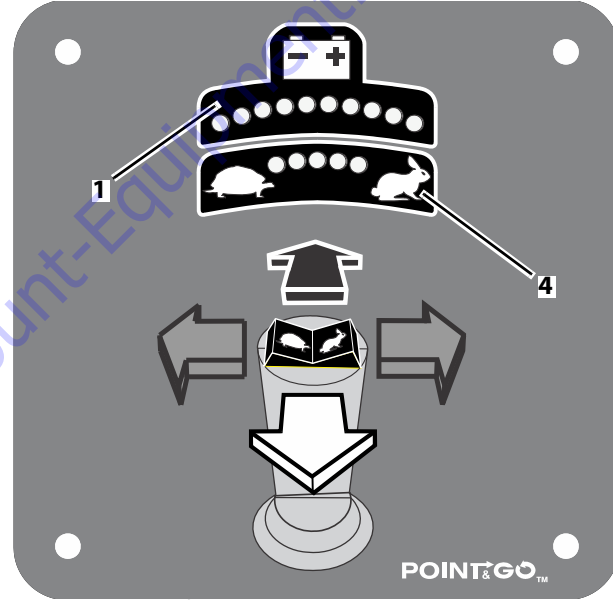
Each PRESS on this side of the switch will INCREASE maximum drive speed. (MORE LEDs Lit up on the Drive Speed Indicator.)

SECTION 3 - MACHINE OPERATION

Platform Control Display Panel



**Platform Control Display Panel
(Prior to SN 0130032507)**



**Platform Control Display Panel
(SN 0130032507 to Present)**

- 1. Battery Charge/Flash Code LEDs
- 2. Drive Mode Indicator
- 3. Lift Mode Indicator
- 4. Drive Speed Setting Indicator

1. Battery Charge/Flash (Fault) Code Indicator LEDs

On normal power-up and operation this series of ten (10) LEDs visually indicates the amount of charge remaining in the batteries.

The number of LEDs lit will change depending on the level of charge in the batteries.

- (+) All Three GREEN LEDs lit up indicate maximum battery charge.
- Four YELLOW LEDs indicate a two thirds to one third battery charge remaining.
- (-) Three RED LED's lit indicate minimum battery charge remaining. The machine will continue to operate at this charge level but will begin to indicate low battery voltage warning indicators.

NOTE: For more information on Battery Warning Level Indicators See "Battery Low Voltage Warning Indicators".

This set of ten LEDs will also indicate a flash (fault) code if other operating problems are detected by the Ground Control Station. Fault codes are also accompanied by a beeping alert from the platform control console.

NOTE: LED Flash (Fault) Code indications that may be corrected by the operator are shown on Table 3-2 of this manual.

2. Drive Mode Indicator

When the Drive/Lift Mode Selector Switch is set to DRIVE MODE the round LED indicator on that portion of the display panel will light up indicating the DRIVE Mode active.

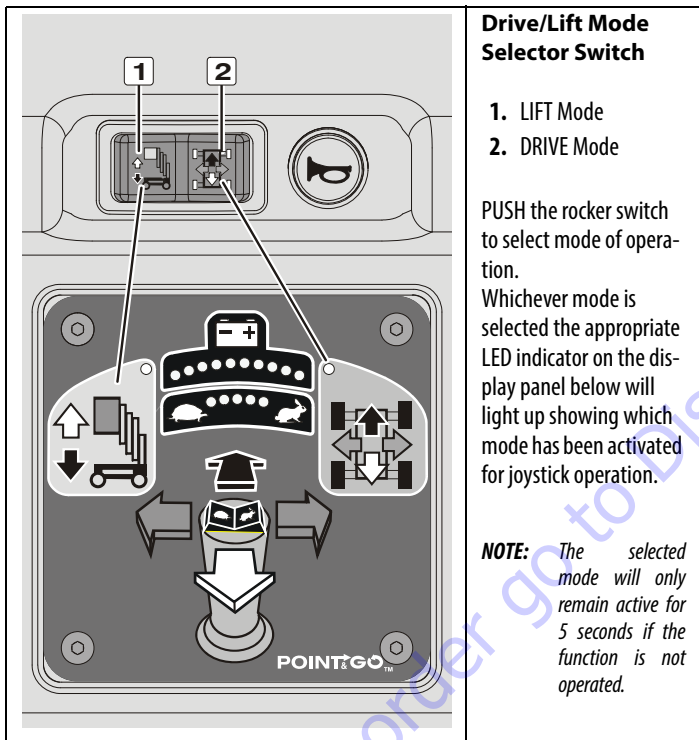
3. Lift Mode Indicator

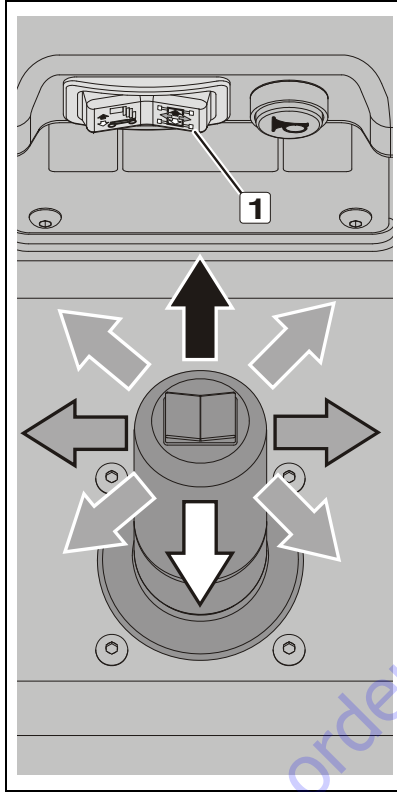
When the Drive/Lift Mode Selector Switch is set to LIFT MODE the round LED indicator on that portion of the display panel will light up indicating the LIFT Mode active.

4. Drive Speed Setting Indicator

The five GREEN LEDs on the top of this indicator display the drive speed setting with the TURTLE representing the MINIMUM speed setting and the RABBIT representing the MAXIMUM speed setting.

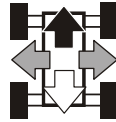
Drive/Lift Mode Selector Switch (If Equipped)



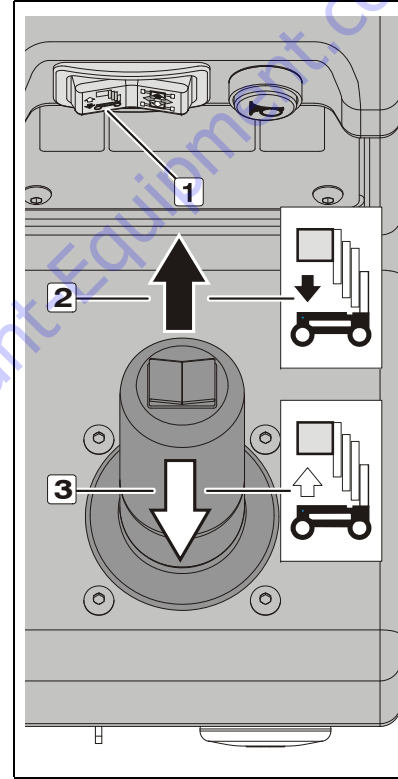


Drive Mode

1. Activate the Drive Mode using the Drive/Lift Mode Selector switch.



Within 5 seconds of activation - Simultaneously ENGAGE and HOLD both the JOYSTICK ENABLE LEVER and the FOOTSWITCH ENABLE then move the joystick in the desired direction of travel. Drive power is applied proportionally the further the joystick is moved off center.



Lift Mode

1. Activate the Lift Mode using the Drive/Lift Mode Selector switch.



2. Platform LIFT DOWN Direction
3. Platform LIFT UP Direction

Within 5 seconds of activation - ENGAGE and HOLD both the FOOTSWITCH ENABLE and JOYSTICK ENABLE LEVER then move the joystick in the direction of LIFT (3) or LOWER (2).

SECTION 3 - MACHINE OPERATION

Left Hand Lift (SN 0130032507 to Present)

The Left Hand Lift is attached to the top left rail of the platform. It functions in conjunction with the footswitch and platform control console function enable lever. All three must be pressed and held while operating any functions. The rocker switch on the end of the handle controls platform lift/up down functions. Use the single function joystick control to drive simultaneously while controlling platform lift/up down functions.

NOTICE

DO NOT HOLD THE LEFT HAND LIFT DURING MACHINE POWER UP. OPERATING ANY CONTROLS DURING MACHINE POWER UP OTHER THAN THE POWER ON/OFF KEY SWITCH OR RESETTNG THE E-STOP/SHUT DOWN SWITCHES WILL CAUSE THE MACHINE TO DISPLAY AN ERROR.

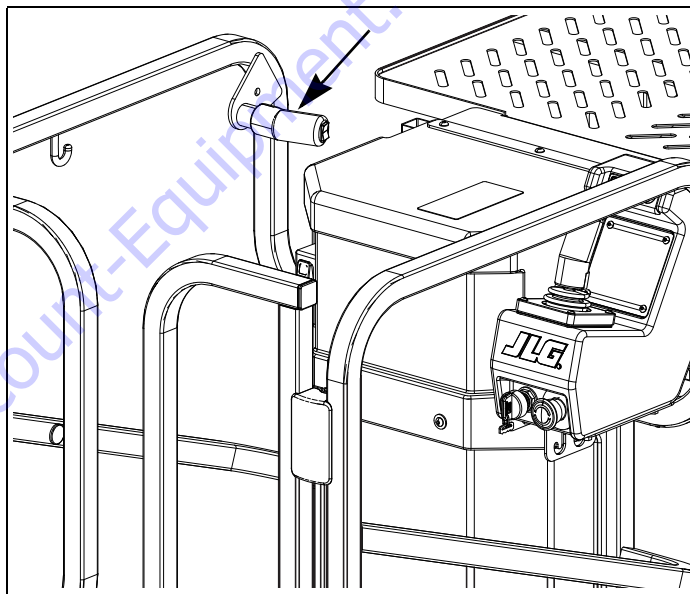
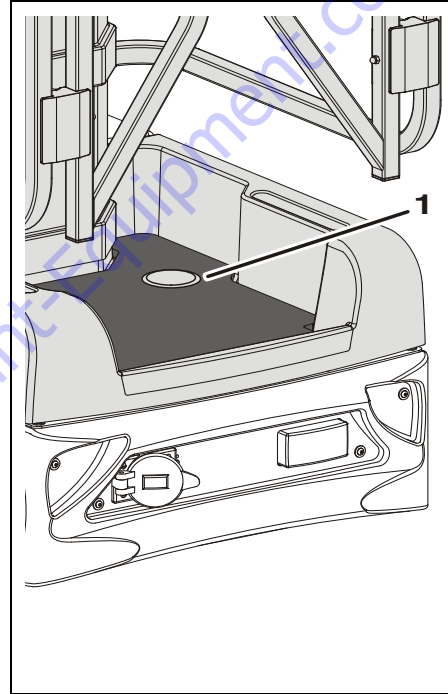


Figure 3-9. Left Hand Lift

3.8 PLATFORM FUNCTION ENABLE FOOTSWITCH

NOTICE

DO NOT REST FOOT ON THE ENABLE FOOT SWITCH DURING MACHINE POWER UP, OPERATING ANY CONTROLS DURING MACHINE POWER UP OTHER THAN THE POWER ON/OFF KEY SWITCH OR RESETTNG THE E-STOP/SHUT DOWN SWITCHES WILL CAUSE THE MACHINE TO DISPLAY AN ERROR.



Platform Function Enable Footswitch

1. Footswitch

Press down and hold while operating any joystick function.

Note:

The foot switch and joystick enable must be held simultaneously in order to operate any joystick functions.

If the machine is also equipped with the left hand lift, all three enable switches must be held simultaneously in order to operate any functions.

3.9 PLATFORM MANUAL DESCENT CONTROL VALVE

⚠ WARNING

CRUSHING HAZARD - BE AWARE OF DESCENDING PLATFORM WHEN MANUALLY LOWERING THE PLATFORM. KEEP HANDS OR FEET OFF OF THE MAST ASSEMBLY AND FROM BENEATH PLATFORM.

The platform manual descent control valve allows ground personnel to lower the platform if the platform operator cannot lower the platform once elevated.

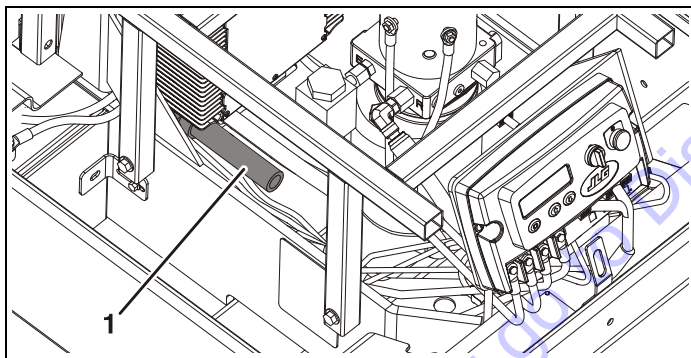
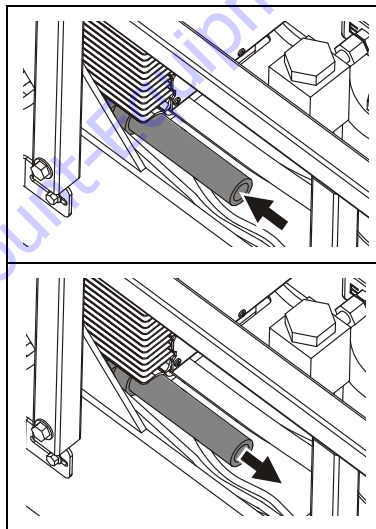


Figure 3-10. Internal Manual Descent Valve Location

1. Manual Descent Valve

Activating the Internal Manual Descent Valve

To activate the internal manual descent valve, remove the hood (carry deck) from the machine. Locate the valve (just below the battery charger), then operate per the following instructions;



PUSH-IN the RED BUTTON on the end of the valve TO LOWER the platform.

RELEASE the RED BUTTON TO STOP platform descent when desired level is reached.

Activating the Remote Manual Descent (If Equipped)

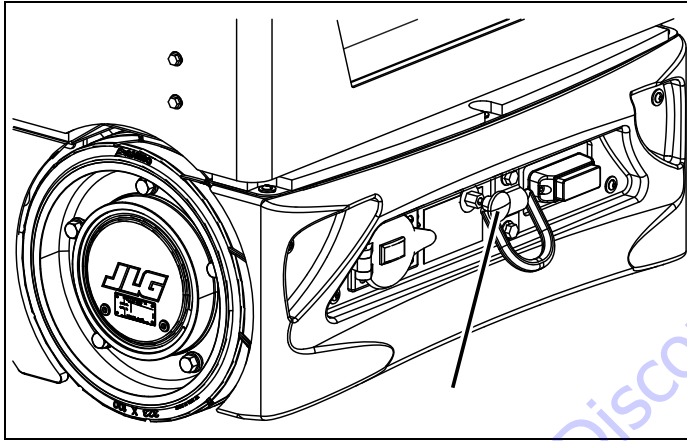
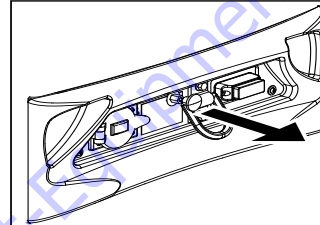
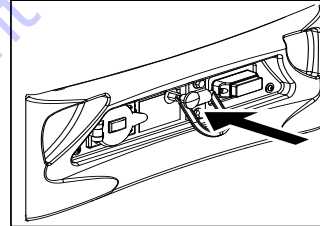


Figure 3-11. Remote Manual Descent Location

To activate the remote manual descent, follow the below instructions:



Pull out the lever on the outer side of the machine TO LOWER the platform.



Release the lever TO STOP platform descent when desired level is reached.

SECTION 3 - MACHINE OPERATION

3.10 PLATFORM CONFIGURATION

Table 3-3. Platform Maximum Capacity

SPECIFICATION	MAXIMUM CAPACITY				Max. Wind Speed
	Platform Load	Manual Material Tray Load	Power Material Tray Load	Carry Deck	
ANSI/CSA					28 mph (12 m/s)
CE (Indoor Use Only)	350 lb (160 kg)	250 lb (115 kg)	200 lb (90 kg)	250 lb (115 kg)	0 m/s
Australia (Indoor Use Only)					0 m/s

Platform Lanyard Anchorage Point

Attach fall restraint lanyard to lanyard anchorage point on lower platform railing. (Refer to item 7 on Figure 3-12.)

⚠ WARNING

ATTACH THE LANYARD TO THE AUTHORIZED LANYARD ANCHORAGE POINT IN THE PLATFORM. FOR FURTHER INFORMATION REGARDING FALL PROTECTION REQUIREMENTS ON JLG PRODUCTS, CONTACT JLG.

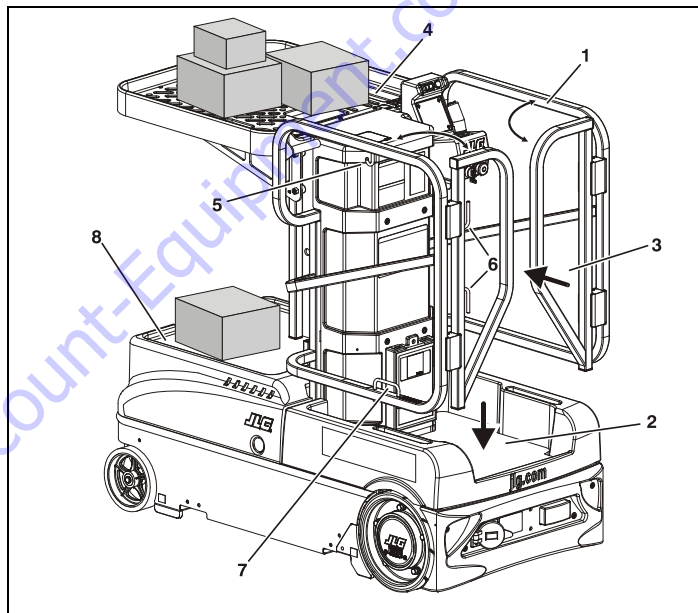


Figure 3-12. Standard Platform

1. Operators Platform
2. Platform Load (Operator)
3. Platform Swing-In Entry Gate
4. Material Handling Tray
5. Storage Hook
6. Ext. Cord Wrap Hooks
7. Lanyard Attach Point
8. Hood (Carry Deck)

Object Detection System (If Equipped)

The Object Detection System is designed to detect an object beneath the platform.

Operation

During platform lowering, if there is no object on the mat beneath the platform, the platform will lower normally.

If an object is detected on the pad beneath the platform the horn will sound three short blasts and the platform will stop lowering.

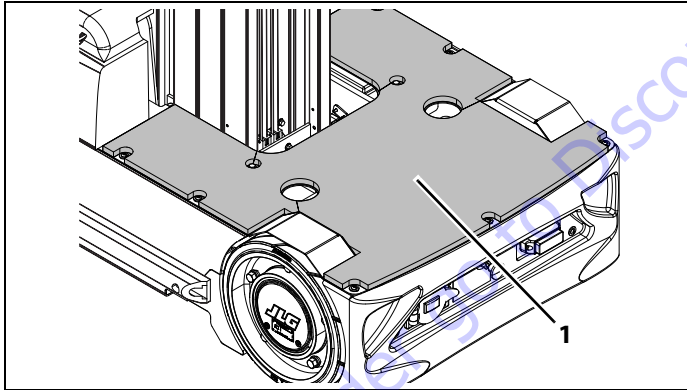


Figure 3-13. Object Detection System

1. Safety Pad Obstruction Switch

If an object is detected, have the object cleared by someone on the ground, reset the system by pressing the horn button once, then continue to lower the machine normally.

Should the object detection system falsely detect an obstruction, the system can be overridden by pressing and holding the horn button while operating the platform lowering controls.

⚠ WARNING

ALWAYS ENSURE THE AREA UNDER THE PLATFORM IS CLEAR OF OBSTRUCTIONS BEFORE LOWERING THE PLATFORM.

Platform Gate Alarm (If Equipped)

If the machine is equipped with a Platform Gate Alarm, an alarm will sound and all lifting and driving functions will stop if either or both gates are opened once the platform is raised approximately 1 in above the fully stowed position. If the machine is moving forward or backward and one or both gates are opened, the alarm will sound and all lifting and driving functions will stop.

SECTION 3 - MACHINE OPERATION

Manual Tray Height Adjustment

The manual tray is designed to carry up to 250 lb (115 kg) of weight. It can be quickly raised or lowered vertically on the front of the mast assembly using the tray handle release.

NOTICE

REMOVE ALL WEIGHT FROM THE TRAY BEFORE ENGAGING THE TRAY RELEASE BAR TO LOWER OR RAISE THE TRAY.

To Lower Or Raise the Tray:

1. In the slot opening at the top rear of the tray, grasp the tray lifting handle to support the tray while adjusting.
2. Squeeze the tray release rod and raise the tray slightly until the locking pins have disengaged from the detent slots.
3. Lower or raise the tray. When desired tray height is achieved, release the tray release rod. Be certain the locking pins at both ends of the release rod are engaged in the detent slots before letting go of the tray lifting handle.

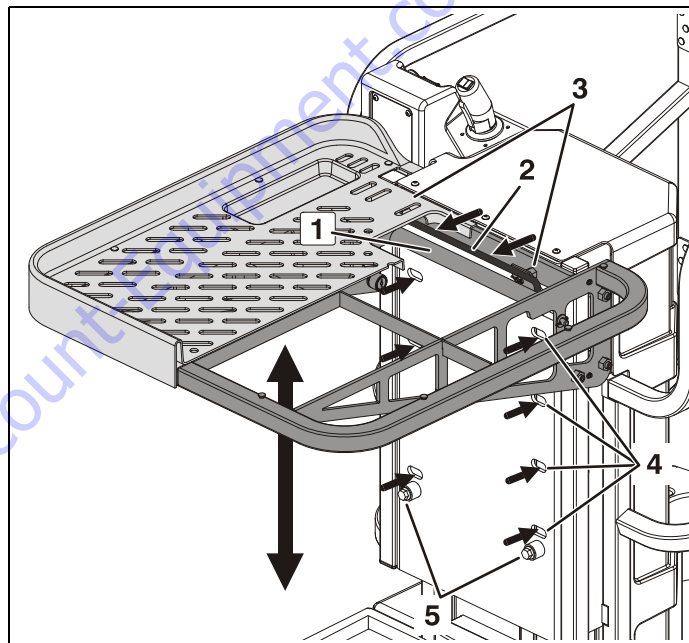




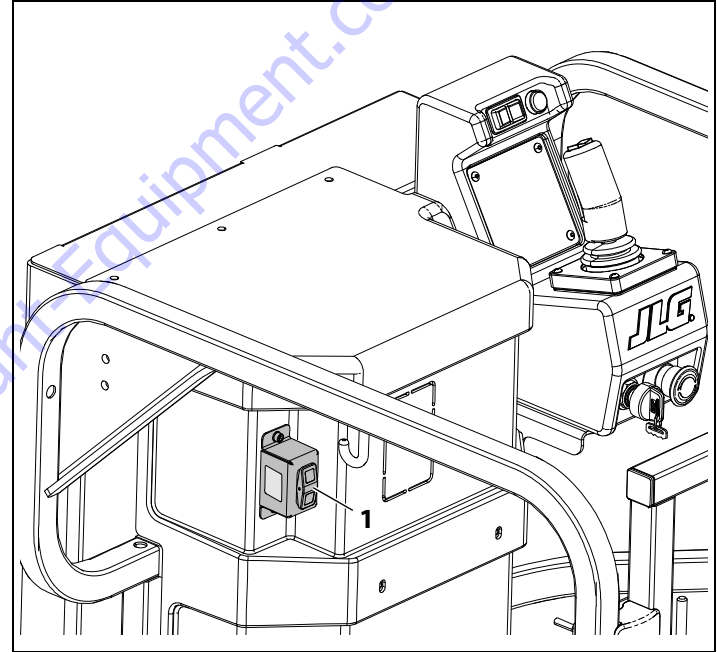
Figure 3-14. Manual Tray Height Adjustment

- | | |
|------------------------|---|
| 1. Tray Lifting Handle | 4. Lock Pin Detent Slots
(Five Level Settings) |
| 2. Tray Release Rod | |
| 3. Locking Pins | 5. Tray Stops |

Power Tray Height Adjustment

The power tray is designed to carry up to 200 lb (90 kg) of weight. It can be quickly and easily raised or lowered vertically on the front of the mast assembly using the switch located in the platform.

1. Push the power tray switch UP  to raise the tray to the desired height.
2. When desired tray height is achieved, release the power tray switch.
3. Push the power tray switch DOWN  to lower the tray.

**Figure 3-15. Power Tray Height Adjustment****1. Power Tray Switch**

SECTION 3 - MACHINE OPERATION

Cargo Strap (Option)

The retractable cargo strap is designed to help secure objects loaded onto the material handling tray while machine is in operation.

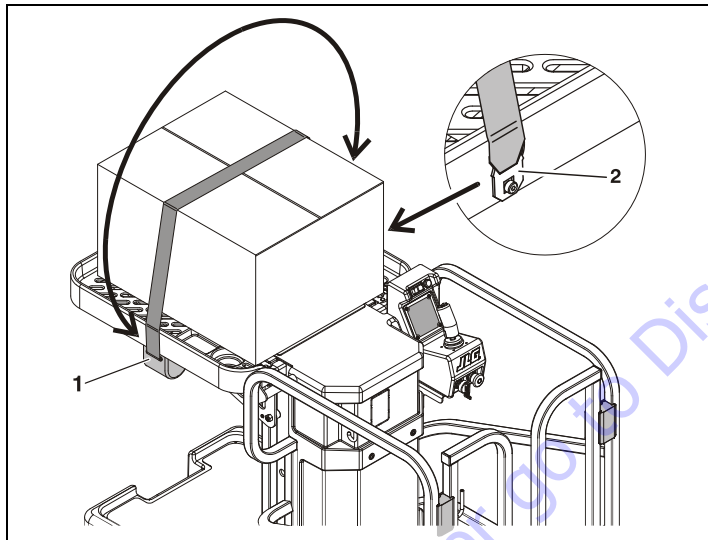


Figure 3-16. Cargo Strap

1. Cargo Strap Assembly

2. Strap Attach Lug

3.11 PARKING MACHINE

1. Drive machine to a well-protected and well-ventilated area.
2. Ensure the platform is fully lowered. Turn the main power selector switch on the platform to the OFF position.
3. If necessary, remove key from the platform ON/OFF power switch to disable machine from unauthorized use.

NOTE: If required, charge batteries in preparation for next work day.

3.12 TRANSPORTING, LIFTING AND TIE-DOWN PROCEDURES

General

This machine may be transported to a work site using the following methods:

- Driven around on its base wheels if travel surface area permits.
- Moved with a forklift truck using the forklift pockets in the base frame.
- Loaded onto a transport vehicle and driven to the work site, when equipped with Front and Rear Tie-Down Loop.

Forklift Truck Transport

This machine is equipped with forklift pockets running crossways under the base frame. This allows the machine to be either transported around a work area or lifted onto a higher level using a standard forklift truck.

NOTE: Forklift trucks must be capable of handling the gross weight of the machine, refer to the Operating Specifications table in Section 6.

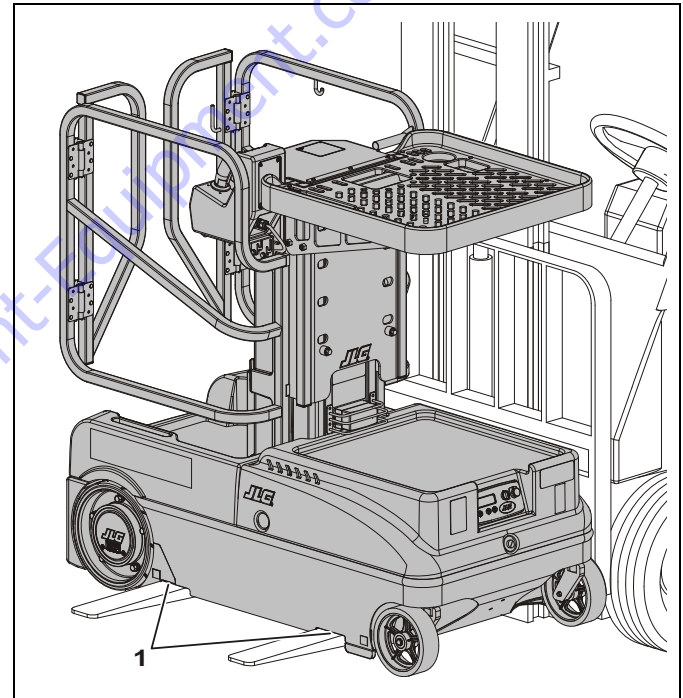


Figure 3-17. Forklift Truck Lifting Pockets

1. Forklift Pockets

SECTION 3 - MACHINE OPERATION

Vehicle Transport Using the Tie-Down Loops

With the machine on the transport vehicle in position to be tied down and machine powered down (*brakes engaged*), use the following guidelines for restraining the machine during transport.

NOTICE

USE OF EXCESSIVE FORCE WHEN SECURING MACHINE (WHEEL LOAD) CAN CAUSE DAMAGE TO THE MACHINES REAR DRIVE OR FRONT CASTER WHEEL COMPONENTS.

1. Secure machine to the transport vehicle with adequate chains or straps attached through the tie down loops located at the front and rear of machine.

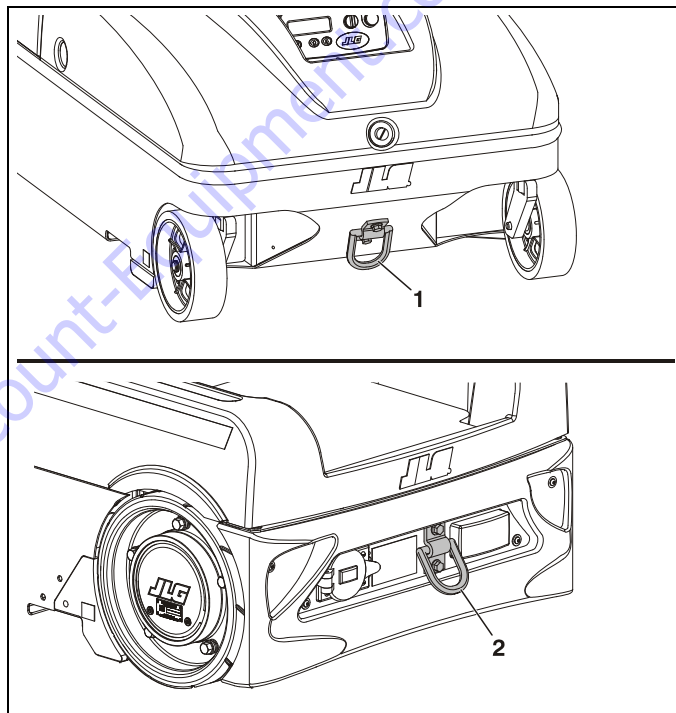


Figure 3-18. Front and Rear Tie-Down Loop

1. Front Tie-Down Loop

2. Rear Tie-Down Loop

3.13 PROGRAMMABLE SECURITY LOCK (PSL™) (OPTION)

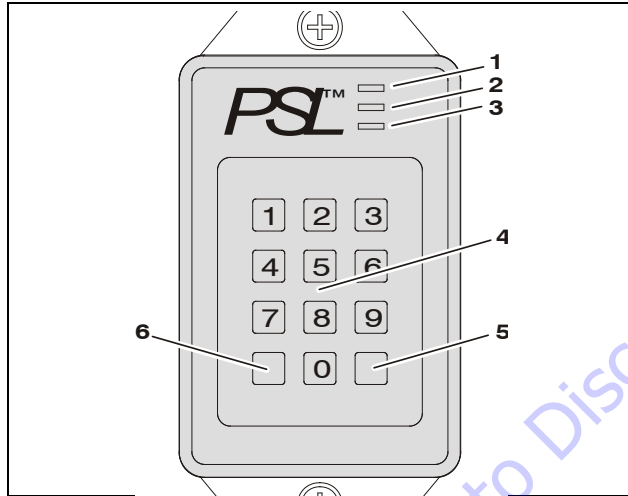


Figure 3-19. PSL™ Controls & Indicators

- | | |
|-----------------------|---------------|
| 1. ON (Green LED) | 4. Key Pad |
| 2. ACCEPT (Amber LED) | 5. OFF Switch |
| 3. PROGRAM (Red LED) | 6. ON Switch |

The optional keyless Programmable Security Lock switch can be programmed with a four-digit Operator's Code to allow only those persons with the code to power-up and operate the machine.

The PSL™ is located on the side of the mast near the bottom. On some machines, it may be located on the front of the mast in the platform.

Machine Power Up

NOTE: When entering the Operator's Code on the keypad, a short beep indicates a properly depressed key, a long beep indicates an error in depressing key. If an error occurs, restart the code entry process again.

1. Enter the programmed four digit Operator's Code on the key pad. The ACCEPT - AMBER LED indicator will be lit if the code is correct.
2. Press the keypad ON button. The ON - GREEN LED indicator will light and power will be supplied to the Ground Control Station.
3. At the ground control station, turn the main power selector switch from OFF to either Platform Control Mode or Ground Control Mode. At the Platform Control Console set the key switch to the ON position.
4. The machine will now operate normally.

Machine Power Down

1. At the Ground Control Station set the main power selector switch to the OFF position.
2. Press the OFF button on the PSL™ keypad. No LEDs on the PSL™ box will be lit.

Changing the Operator's Code

The Operator's Code can be changed should the need occur. A separate Permanent Code matched to the serial number of the PSL™ box is included on a sheet in the PSL™ user manual supplied with the machine.

1. Enter the Permanent Code on the key pad. The PROGRAM - RED LED will be lit if correct code is entered.

NOTE: *ON or OFF cannot be one of the four digits of the new Operator's code.*

2. Enter a new four digit Operator's Code on the keypad. The ACCEPT - AMBER LED will light up if the new Operator's Code is accepted.
3. Press the OFF button on the keypad to activate the new Operator's Code.

NOTE: *The new Operator's Code will remain in the PSL™ even when power is removed from the equipment, or until that code is changed again using the Permanent Code.*

3.14 DECAL INSTALLATION - PRIOR TO SN 0130032507

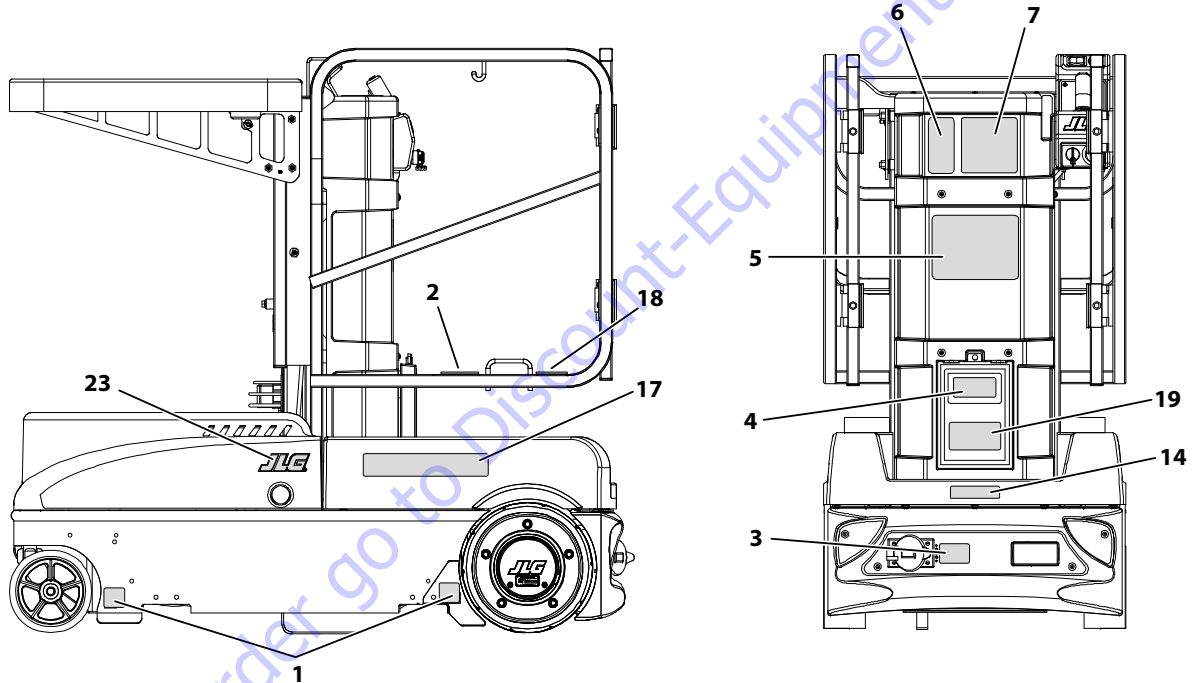


Figure 3-20. Decal Installation (Prior to SN 0130032507)

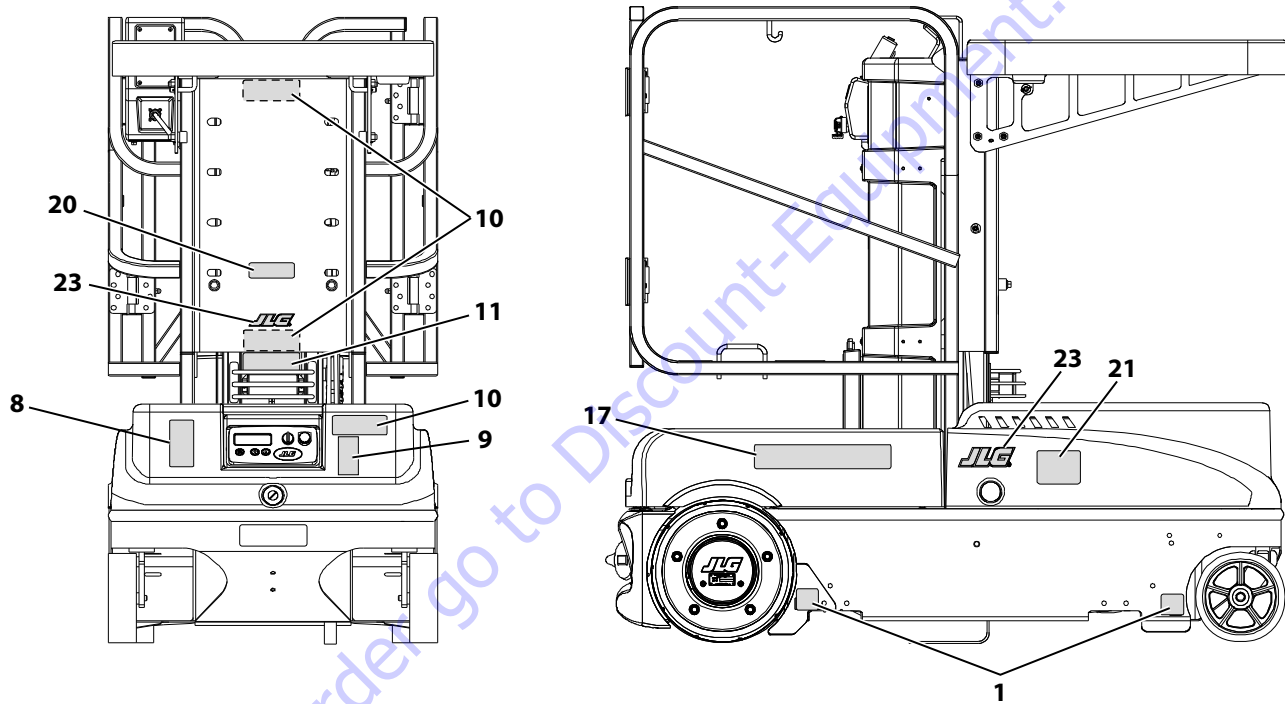


Figure 3-21. Decal Installation (Prior to SN 0130032507)

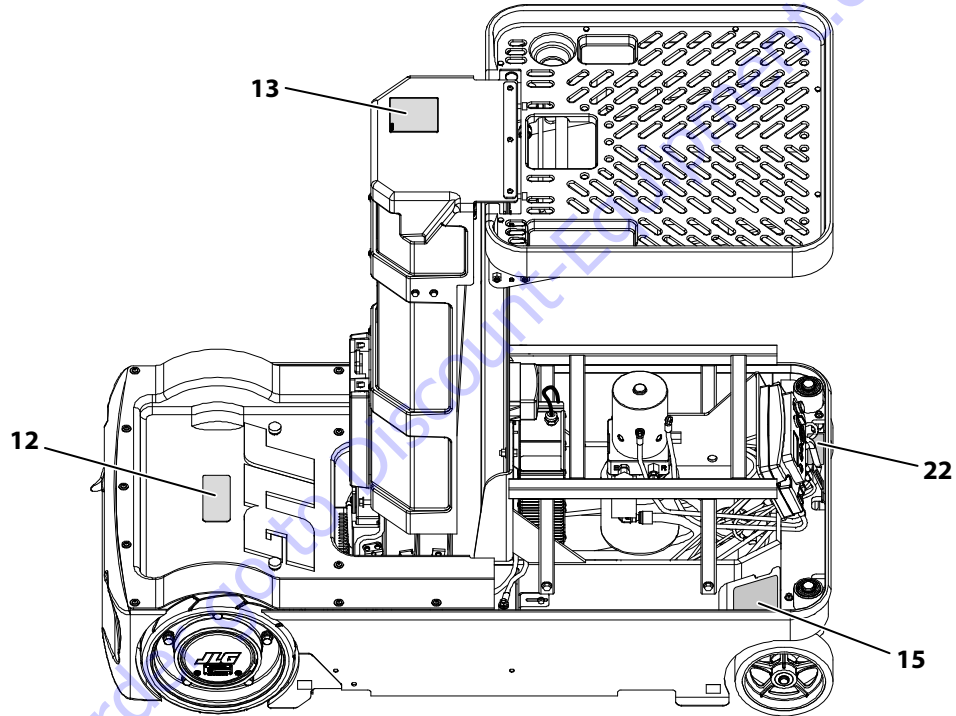


Figure 3-22. Decal Installation (Prior to SN 0130032507)

SECTION 3 - MACHINE OPERATION

Table 3-4. Decal Installation (Prior to SN 0130032507)

Item	ANSI	ANSI (LAT)	ANSI (BRZ)	ANSI (JPN)	ANSI (CHI)	CE (ENG/AUS)	CE (GER)	CE (FRE)	CE (SPA)	CE (ITA)	CE (DUT)	CE (SWE)	CSA (FRE)
1	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557
2	1705624	1705624	1705624	1705624	1705624	1705624	1705624	1705624	1705624	1705624	1705624	1705624	1705624
3	1705929	1706085	1706089	1706077	1706093	1706077	1706077	1706077	1706077	1706077	1706077	1706077	1706097
4	1701640	1701640	1701640	1701640	1701640	1701640	1701640	1701640	1701640	1701640	1701640	1701640	1701640
5	1705937	1706084	1706088	---	1706092	---	---	---	---	---	---	---	1706096
6	1705938	1706083	1706087	1706078	1706091	1706078	1706078	1706078	1706078	1706078	1706078	1706078	1706095
7	1001207205	1001207205	1001207205	1001207206	1001207205	1001207206	1001207206	1001207206	1001207206	1001207206	1001207206	1001207206	1001207205
8	1706616	1706616	1706616	1706616	1706616	1706616	1706616	1706616	1706616	1706616	1706616	1706616	1706616
9	1706617	1706617	1706617	1706617	1706617	1706617	1706617	1706617	1706617	1706617	1706617	1706617	1706617
10	1705995	1706082	1706086	1705099	1706090	1705099	1705099	1705099	1705099	1705099	1705099	1705099	1706094
11	1705992	1705992	1705992	1705992	1705992	1705992	1705992	1705992	1705992	1705992	1705992	1705992	1705992
12	1703786	1706082	1706086	---	1706090	1705099	1705099	1705099	1705099	1705099	1705099	1705099	1706094
13	1706131	1706131	1706131	1706131	1706131	1706131	1706131	1706131	1706131	1706131	1706131	1706131	1706131
14	1706764	1706764	1706764	1706764	1706764	1706764	1706764	1706764	1706764	1706764	1706764	1706764	1706764
15	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631
16	Not Used												

SECTION 3 - MACHINE OPERATION**Table 3-4. Decal Installation (Prior to SN 0130032507)**

Item	ANSI	ANSI (LAT)	ANSI (BRZ)	ANSI (JPN)	ANSI (CHI)	CE (ENG/ (AUS)	CE (GER)	CE (FRE)	CE (SPA)	CE (ITA)	CE (DUT)	CE (SWE)	CSA (FRE)
17	1706743	1706743	1706743	1706743	1706743	1706743	1706743	1706743	1706743	1706743	1706743	1706743	1706743
18	1706115	1706116	1706118	---	1706117	---	---	---	---	---	---	---	1706119
19	1703779	---	---	---	---	---	---	---	---	---	---	---	---
20	1705303	---	---	---	---	---	---	---	---	---	---	---	1705303
21	1001131273	---	---	---	---	---	---	---	---	---	---	---	1001131273
22	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631	1702631
23	1703681	1703681	1703681	1703681	1703681	1703681	1703681	1703681	1703681	1703681	1703681	1703681	1703681

3.15 DECAL INSTALLATION - SN 0130032507 TO PRESENT

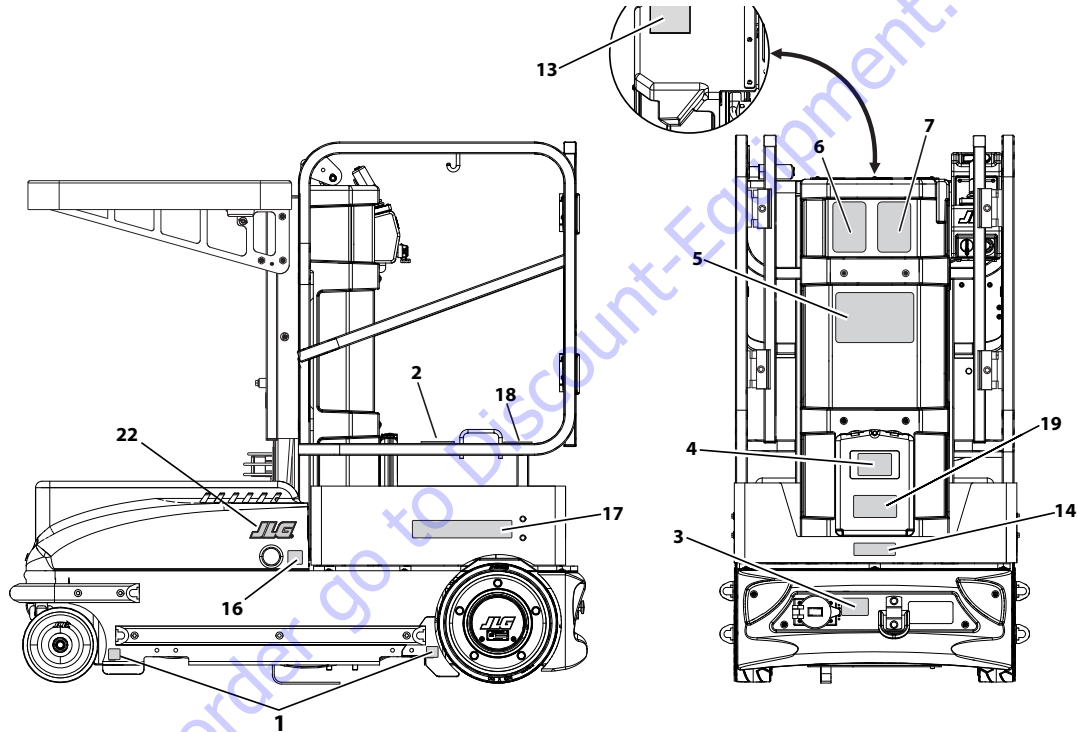


Figure 3-23. Manual Tray - Decal Installation (SN 0130032507 to Present)

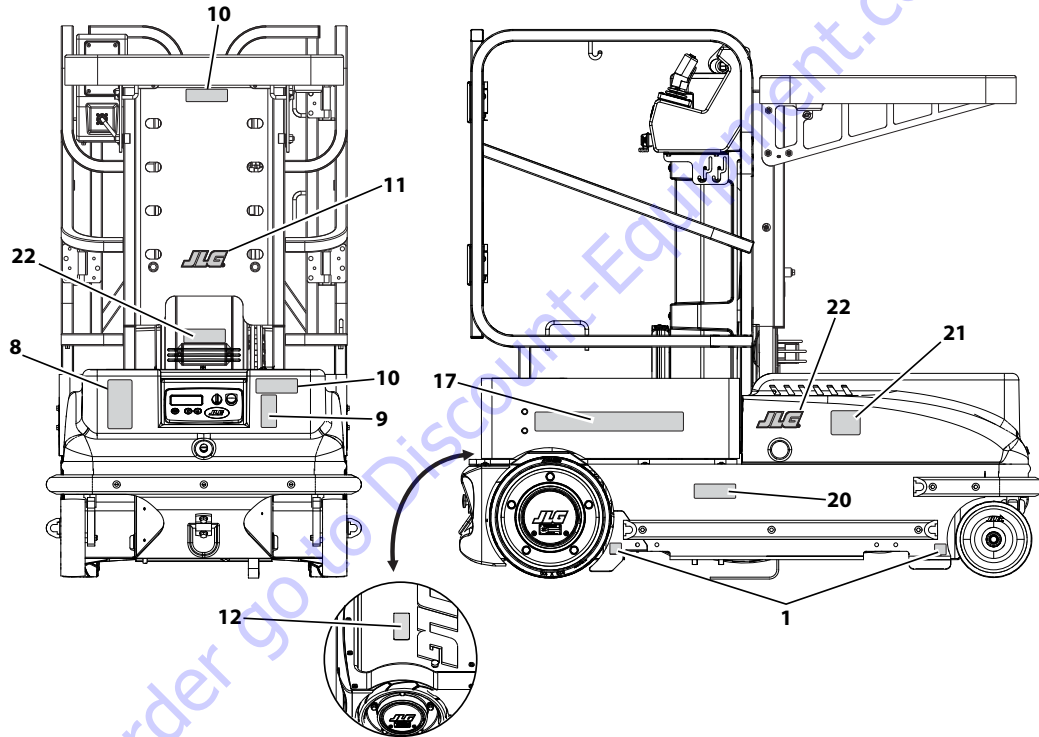


Figure 3-24. Manual Tray - Decal Installation (SN 0130032507 to Present)

SECTION 3 - MACHINE OPERATION

Table 3-5. Manual Tray - Decal Installation (SN 0130032507 to Present)

Item	ANSI (ENG)	CSA (FRE)	CE (ENG)	ANSI (SPA)	ANSI (POR)	ANSI (CHI)	ANSI (JPN)	AUS (ENG)
1	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557
2	1001213582	1001213582	1001213582	1001213582	1001213582	1001213582	1001213582	1001213582
3	1001233054	1001233055	1706077	1001233056	1001233057	1001233058	1706077	1706077
4	1701640	1701640	1701640	1701640	1701640	1701640	1701640	1701640
5	1705937	1706096	---	1706084	1706088	1706092	---	---
6	1705938	1706095	1706078	1706083	1706087	1706091	1706078	1706078
7	1001207205	1001207205	1001207206	1001207205	1001207205	1001207205	1001207206	1001207206
8	1706616	1706616	1706616	1706616	1706616	1706616	1706616	1706616
9	1706617	1706617	1706617	1706617	1706617	1706617	1706617	1706617
10	1705995	1706094	1705099	1706082	1706086	1706090	1705099	1705099
11	1705992	1705992	1705992	1705992	1705992	1705992	1705992	1705992
12	1703786	1706094	1705099	1706082	1706086	1706090	1705099	1705099
13	1706131	1706131	1706131	1706131	1706131	1706131	1706131	1706131
14	1706764	1706764	1706764	1706764	1706764	1706764	1706764	1706764
15	1706740	1706740	1706740	1706740	1706740	1706740	1706740	1706740
16	1706743	1706743	1706743	1706743	1706743	1706743	1706743	1706743
17	---	1706119	---	1706116	1706118	1706117	---	---

Table 3-5. Manual Tray - Decal Installation (SN 0130032507 to Present)

Item	ANSI (ENG)	CSA (FRE)	CE (ENG)	ANSI (SPA)	ANSI (POR)	ANSI (CHI)	ANSI (JPN)	AUS (ENG)
18	1703779	---	---	---	---	---	---	---
19	1705303	1705303	---	---	---	---	---	---
20	1001131273	1001131273	---	---	---	---	---	---
21	1703681	1703681	---	1703681	---	1703681	1703681	---

To order go to Discount-Equipment.com

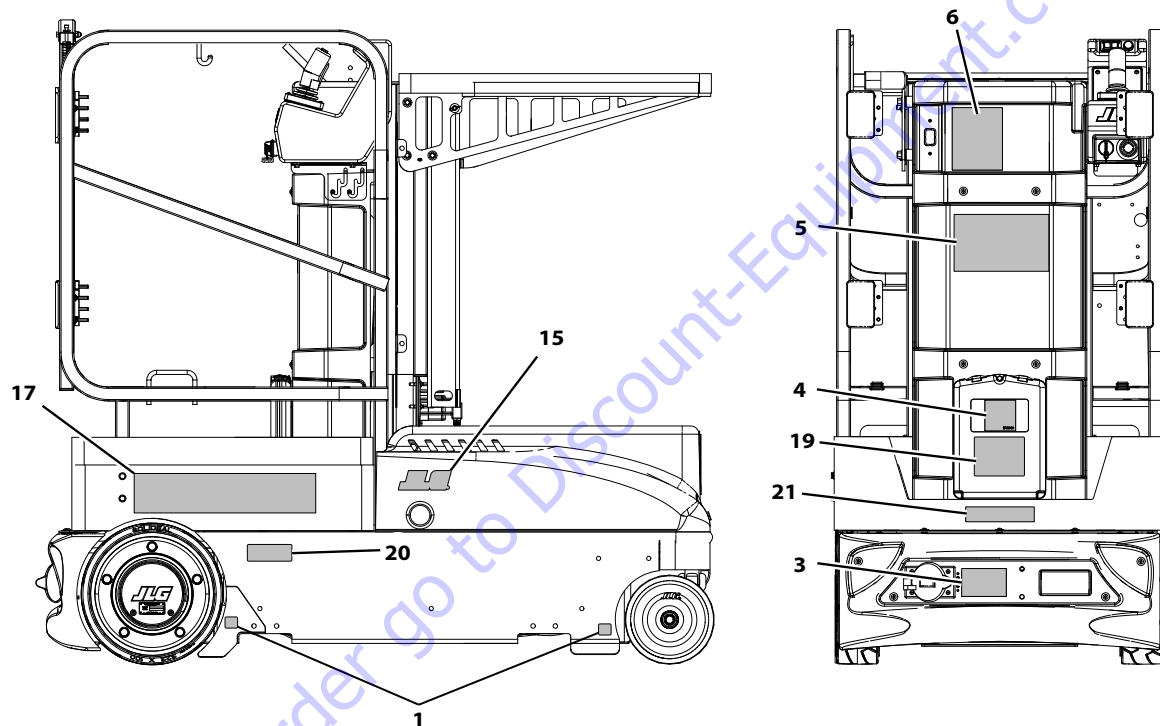


Figure 3-25. Power Tray - Decal Installation (SN 0130032507 to Present)

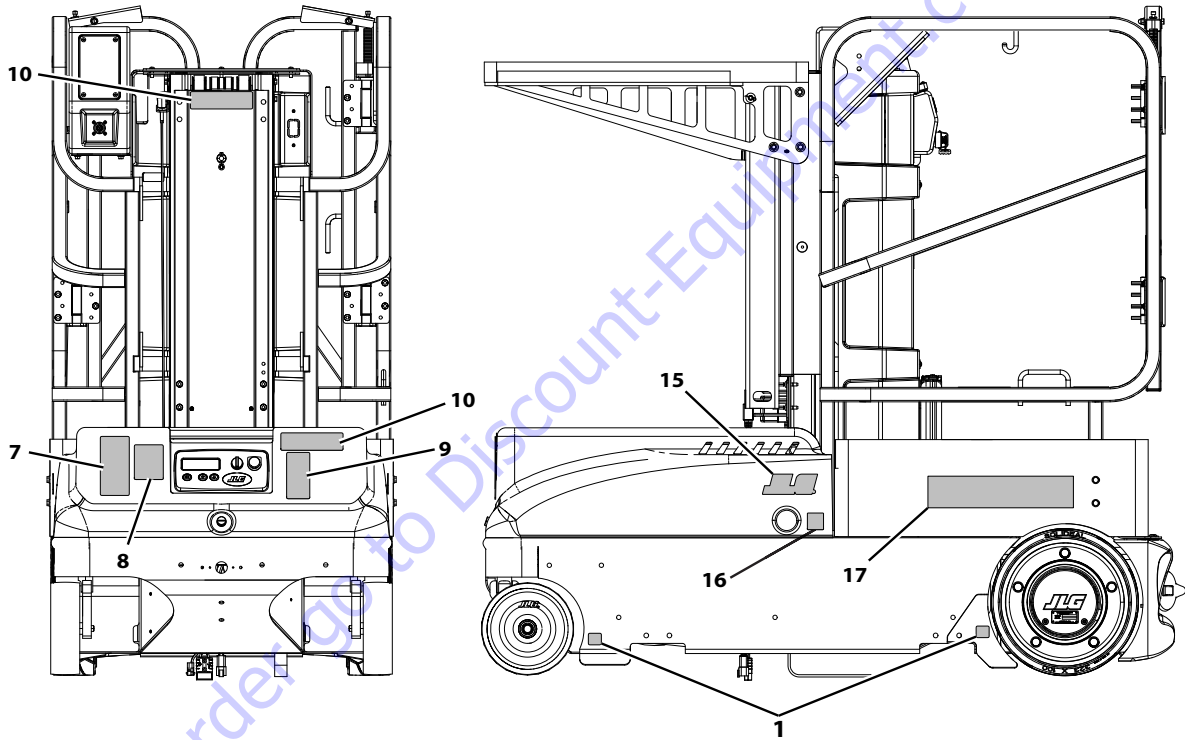


Figure 3-26. Power Tray - Decal Installation (SN 0130032507 to Present)

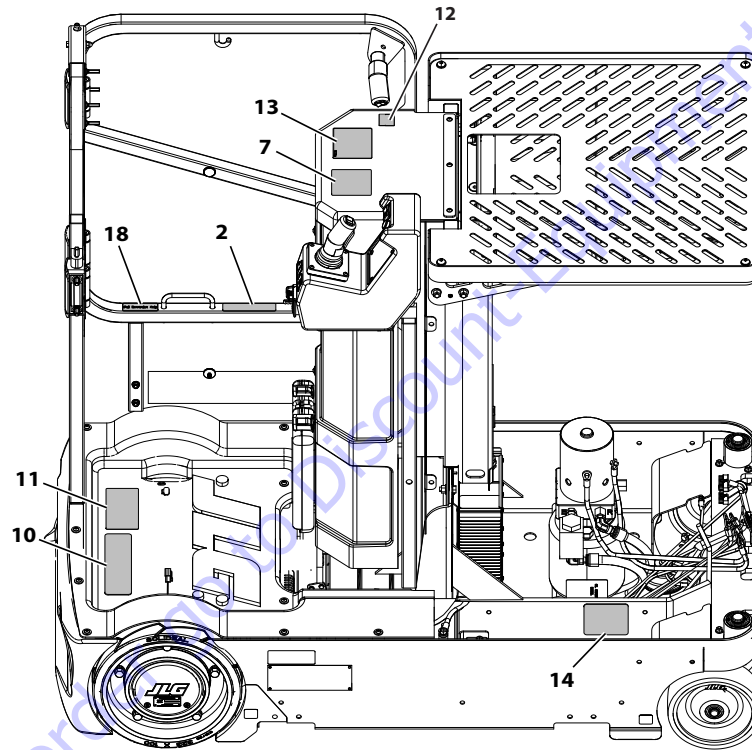


Figure 3-27. Power Tray - Decal Installation (SN 0130032507 to Present)

Table 3-6. Power Tray - Decal Installation (SN 0130032507 to Present)

Item	ANSI (ENG)	CSA (FRE)	CE (ENG)	ANSI (SPA)	ANSI (POR)	ANSI (CHI)	ANSI (JPN)	AUS (ENG)
1	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557	1001143557
2	1001213582	1001213582	1001213582	1001213582	1001213582	1001213582	1001213582	1001213582
3	1001233054	1001233055	1706077	1001206383	1001233057	1001233058	1706077	1706077
4	1701640	1701640	1701640	1701640	1701640	1701640	1701640	1701640
5	1705937	1706096	---	1706084	1706088	1706092	---	---
6	1705938	1706095	1706078	1706083	1706087	1706091	1706078	1706078
7	1001206313	1001206313	1001202686	1001206313	1001206313	1001206313	---	1001202686
8	1706616	1706616	1706616	1706616	1706616	1706616	1706616	1706616
9	1706617	1706617	1706617	1706617	1706617	1706617	1706617	1706617
10	1705995	1706094	1705099	1706082	1706086	1706090	1705099	1705099
11	1705992	1705992	1705992	1705992	1705992	1705992	1705992	1705992
12	1001230219	1001230219	1001230219	1001230219	1001230219	1001230219	1001230219	1001230219
13	1706131	1706131	1706131	1706131	1706131	1706131	1706131	1706131
14	1001131273	1001131273	---	---	---	---	---	---
15	1703681	1703681	1703681	1703681	1703681	1703681	1703681	1703681
16	1706740	1706740	1706740	1706740	1706740	1706740	1706740	1706740
17	1706743	1706743	1706743	1706743	1706743	1706743	1706743	1706743

SECTION 3 - MACHINE OPERATION

Table 3-6. Power Tray - Decal Installation (SN 0130032507 to Present)

Item	ANSI (ENG)	CSA (FRE)	CE (ENG)	ANSI (SPA)	ANSI (POR)	ANSI (CHI)	ANSI (JPN)	AUS (ENG)
18	---	1706119	---	1706116	1706118	1706117	---	---
19	1703779	---	---	---	---	---	---	---
20	1705303	1705303	---	---	---	---	---	---
21	1706764	1706764	1706764	1706764	1706764	1706764	1706764	1706764

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SECTION 4. EMERGENCY PROCEDURES

4.1 GENERAL INFORMATION

This section explains the steps to be taken in case of an emergency situation during operation.

4.2 EMERGENCY OPERATION

Operator Unable to Control Machine

IF THE PLATFORM OPERATOR IS PINNED, TRAPPED OR UNABLE TO OPERATE OR CONTROL THE MACHINE:

1. Other personnel should operate the machine from ground controls only as required.
2. Only qualified personnel in the platform may use the platform controls. DO NOT CONTINUE OPERATION IF CONTROLS DO NOT FUNCTION PROPERLY.
3. Rescue equipment can be used to remove the platform occupant. Cranes and forklifts can be used to stabilize motion of the machine.

Platform Caught Overhead

If the platform becomes jammed or snagged in overhead structures or equipment, rescue the platform occupant prior to freeing the machine.

4.3 INCIDENT NOTIFICATION

JLG Industries, Inc. must be notified immediately of any incident involving a JLG product. Even if no injury or property damage is evident, the factory should be contacted by telephone and provided with all necessary details.

USA: 877-JLG-SAFE (554-7233)

Outside USA: 240-420-2661

E-mail: productsafety@jlg.com

Failure to notify the manufacturer of an incident involving a JLG Industries product within 48 hours of such an occurrence may void any warranty consideration on that particular machine.

NOTICE

FOLLOWING ANY ACCIDENT, THOROUGHLY INSPECT THE MACHINE AND TEST ALL FUNCTIONS FIRST FROM THE GROUND CONTROL STATION, THEN FROM THE PLATFORM CONTROL CONSOLE. DO NOT ELEVATE PLATFORM UNTIL YOU ARE SURE THAT ALL DAMAGE HAS BEEN REPAIRED, IF REQUIRED, AND THAT ALL CONTROLS ARE OPERATING CORRECTLY.

SECTION 5. ACCESSORIES

Table 5-1. Available Accessories

Accessory	Market					
	ANSI (USA Only)	ANSI	CSA	CE	AUS	Japan
Platform Hanger	√	√	√			√
Rug Carrier	√	√	√			√
Scanner Pocket	√	√	√	√	√	√
Fluorescent Tube Caddy	√	√	√	√	√	√

SECTION 5 - ACCESSORIES

5.1 PLATFORM HANGER

⚠ WARNING

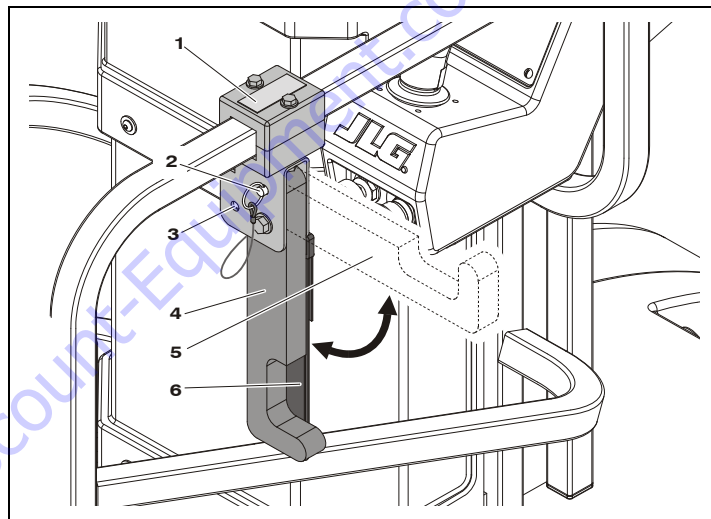
THE WEIGHT OF OBJECTS CARRIED IN A PLATFORM ACCESSORY, ALONG WITH PERSONNEL AND EQUIPMENT PLACED IN THE PLATFORM, MUST NOT EXCEED THE MAXIMUM RATED PLATFORM CAPACITY.

DO NOT USE MORE THAN ONE ACCESSORY MOUNTED ON THE SAME SIDE OF THE PLATFORM AT ANY TIME.

NOTE: *This hanger accessory is intended for use in placing or retrieving lightweight bulky stock items such as bicycles, ladders, etc., on racks or shelves above ground level. Use for any other purpose is not authorized by JLG.*

The hanger accessory is a pivoting arm mounted to the 10MSP platform rail. The hanger accessory can be mounted to either side of the platform individually, or two can be mounted with one on each side of the platform. Each individual hanger has a maximum load capacity of 50 lb (23 kg).

The hanger arm can be pivoted out of the way parallel with the platform side rails when not in use (*the stowed position*). The hanger arm is pinned into position at 90 degrees to the platform side rails when in use (*the carry position*).



- | | |
|--|---------------------------------|
| 1. Mounting Bracket/Capacity Decal (a) | 4. Hanger Arm (Stowed Position) |
| 2. Lock Pin (Stowed Position) | 5. Hanger Arm (Carry Position) |
| 3. Lock Pin (Carry Position) | 6. Hanger Arm Strap |

NOTE: (a) Maximum load capacity of hanger is 50 lb (23 kg).

Pre-Start Inspection

Prior to use of the hanger accessory, check the following;

- Hanger arm mounting is secure to the platform railing with no missing or damaged fasteners.
- The hanger arm lock pin is in place and secure.

Loading and Transporting an Item

Use the following steps as a guide when loading and transporting an object with the hanger accessory arm.

1. Keep the hanger arm in the stowed position when not in use.
2. When ready to use, pull the lock pin from the stowed position hole and swing the hanger arm into the carry position. Place pin in the carry position hole locking the hanger arm in place.
3. Load the object onto the hanger arm and use the hanger arm strap to secure the object during transport.
4. Be aware of clearance above, below, and around the object when driving and lifting or lowering the platform.

5.2 RUG CARRIER ACCESSORY

NOTE: *This rug carrier accessory is intended for use in placing or retrieving rolled/unrolled rugs and other similar stock stored on racks or shelves above ground level. Use for any other purpose is not authorized by JLG.*

The rug carrier accessory consists of two extendable arms mounted on the left side of the machine. The maximum combined load carrying capacity for both arms is 50 lb (23 kg).

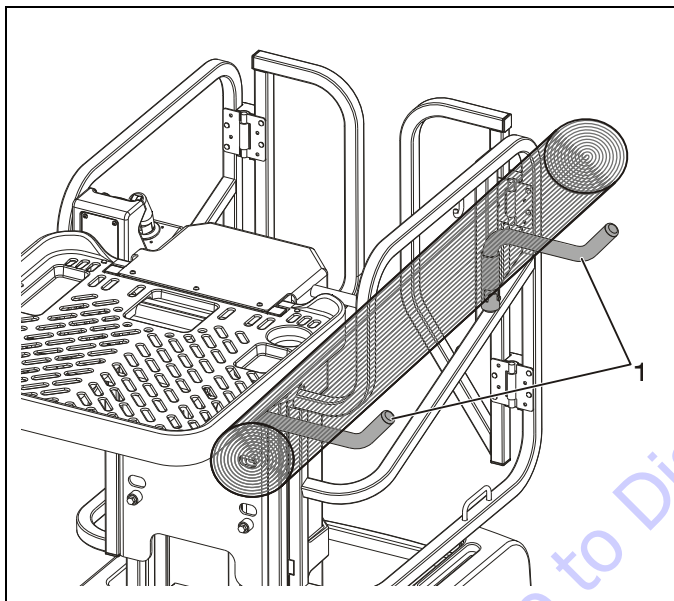
The carrier arms can be retracted when not in use.

Pre-Start Inspection

Prior to use of the carrier accessory, check the following;

- The material tray is fully raised and locked in position.
- Carrier arm mounts are secure to the machine with no missing or damaged fasteners.
- The carrier arms lock pins are in place and secure.

SECTION 5 - ACCESSORIES



1. Rug Carrier arms shown in the extended or carry position.

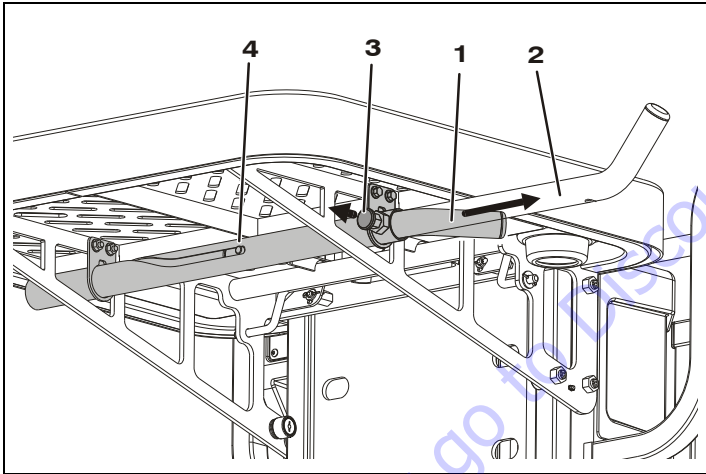
NOTE: Maximum combined carrying capacity for both arms is 50 lb (23 kg).

Hanging a Rug

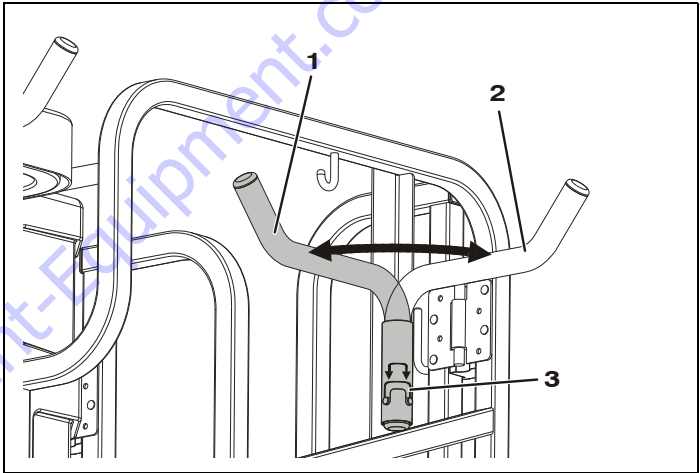
The following is a description for use of the Rug Carrier accessory in hanging rugs on horizontal pivoting arm display racks.

1. Select the intended location in the display for mounting the rug. Open the display rack to provide adequate space for the lift and rug.
2. With the Rug Carrier Accessory arms stowed, drive the lift into position prior to loading the rug.
3. Release and lock Rug Carrier Accessory arms into the carry position.
4. Load the rolled rug with the finished side facing the platform. As required, use an assistant to load the rug onto the Rug Carrier Accessory arms.
5. Make sure that the rug is centered over its length on the Rug Carrier Accessory.
6. Elevate the platform to the required height for mounting the rug onto the display arm.
7. Properly attach the rug to the display arm. Never climb onto the platform rails for any reason.

- 8. After adequately attaching the rug to the display arm, lower the platform, stow the Rug Carrier Accessory arms.
- 9. As required reposition and elevate the lift to completely attach the rug.



- 1. Front Arm in Stowed Position
- 2. Front Arm in Carry Position
- 3. Release Button to Move Arm
- 4. Arm Guide



- 1. Rear Arm in Stowed Position
- 2. Rear Arm in Carry Position
- 3. Lift Arm, Swing Out and Lower Down to Lock in Place

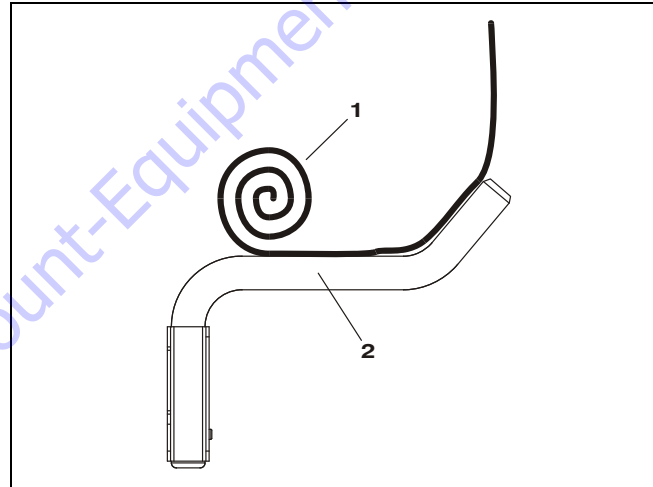
SECTION 5 - ACCESSORIES

Removing a Rug

This section describes the use of the Rug Carrier accessory in removing a rug from a horizontal pivoting arm display rack.

1. Select the intended location in the display for removal of the rug. Open the display rack to provide adequate space for the lift and rug.
2. With the Rug Carrier Accessory arms stowed, drive the lift into position prior to loading the rug.
3. Swing and lock the Rug Carrier Accessory arms into the carry position.
4. Elevate the platform a few feet. Start to roll the rug onto the Rug Carrier Accessory arms.
5. Be certain the rug is centered over its length on the Rug Carrier Accessory.
6. While elevating to the required height for removing the rug from the display arm, continue to roll the rug until it is completely rolled up on the carrier arms.
7. Properly remove the rug from the display arm. Never climb onto the platform rails for any reason.
8. After adequately removing the rug from the display arm, lower the platform.
9. Remove the rug from the Rug Carrier Accessory. If required, use an assistant to unload the rug from the Rug Carrier Accessory Arms.

10. Replace the Rug Hanger Accessory arms to the stowed position for normal operation.



Removing Rug From Display Arm

1. Roll Rug onto Rug Carrier while Elevating Platform
2. Rug Carrier in Carry Position

⚠ CAUTION

THE RUG CARRIER ACCESSORY ARMS MUST BE LOCKED IN THE STOWED POSITION WHEN NOT IN USE.

EXTREME CAUTION MUST BE EXERCISED AT ALL TIMES WHILE THE RUG CARRIER ACCESSORY IS IN USE (DRIVING, RAISING AND LOWERING) TO PREVENT OBSTACLES AND PERSONNEL FROM STRIKING THE LOAD.

WHEN DRIVING WITH A RUG WITHIN THE RUG CARRIER ACCESSORY, THE RUG MUST BE PROPERLY SECURED TO PREVENT INADVERTENT MOTION OR MOVEMENT OF THE RUG AND MUST NOT EXCEED THE RATED CAPACITY OF THE RUG CARRIER ACCESSORY.

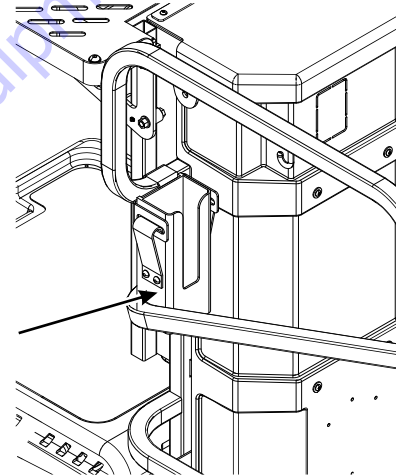
NEVER OVERLOAD THE RUG CARRIER ACCESSORY. MAXIMUM CAPACITY OF THE RUG CARRIER ACCESSORY IS 50 LBS.

THE COMBINED WEIGHT OF PERSONNEL, MATERIALS, EQUIPMENT PLUS ANY LOAD ON THE RUG CARRIER ACCESSORY MUST NOT EXCEED THE MAXIMUM CAPACITY OF THE PLATFORM.

NEVER USE A RUG CARRIER ACCESSORY THAT HAS DAMAGE OR LOOSE MOUNTINGS. IMMEDIATELY REPORT ANY DAMAGE TO APPROPRIATE PERSONNEL. DISCONTINUE USE OF THE RUG CARRIER ACCESSORY UNTIL ALL DISCREPANCIES HAVE BEEN CORRECTED.

5.3 SCANNER POCKET

This accessory offers a secure location in the platform to store handheld scanners.



SECTION 5 - ACCESSORIES

5.4 FLUORESCENT TUBE CADDY

NOTE: The fluorescent tube caddy is intended for use in replacing fluorescent tubes in light fixtures mounted at ceiling level. Use for any other purpose is not authorized by JLG. Maximum carrying capacity of caddy is 15 lb (7 kg).

The fluorescent tube caddy attaches to the platform side rail. The caddy mount is secured to the platform rail with an attach pin. The caddy can be mounted to either side of the platform dependent on other attachments already mounted to the platform rail.

Pre-Start Inspection

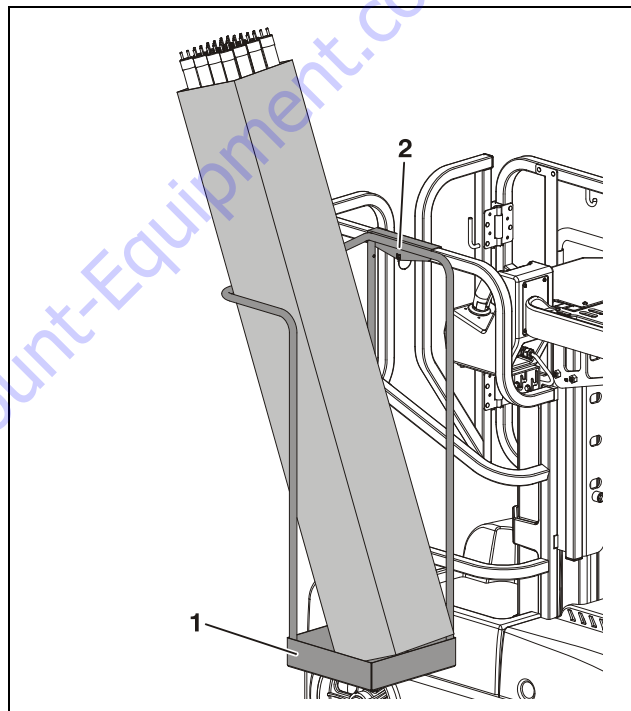
Prior to use of the Fluorescent Tube Caddy, check the following;

- Caddy mount is centered and secure to the platform rail.
- The caddy lock pin is in place under the platform rail and secure.

⚠ CAUTION

THIS MACHINE IS NOT INSULATED AND DOES NOT PROVIDE PROTECTION FROM CONTACT OR PROXIMITY TO ELECTRICAL CURRENT.

THE COMBINED WEIGHT OF PERSONNEL, MATERIALS, EQUIPMENT PLUS ANY LOAD ON THE FLUORESCENT TUBE CADDY MUST NOT EXCEED THE MAXIMUM LOAD CAPACITY OF THE PLATFORM.



1. Fluorescent Tube Caddy

2. Attach Pin and Retaining Wire

NOTE: Caddy maximum carrying capacity is 15 lb (7 kg).

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SECTION 6. GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

6.1 INTRODUCTION

This section of the manual provides additional necessary information to the operator for proper operation and maintenance of this machine.

The maintenance portion of this section is intended as information to assist the machine operator to perform daily maintenance tasks only. It does not replace the more thorough Preventive Maintenance and Inspection Schedule included in the Service and Maintenance Manual.

Other Publications Available Specific to This Machine

Service and Maintenance Manual

GLOBAL..... 3121228

Illustrated Parts Manual

GLOBAL (Prior to SN 0130032507)..... 3121229

GLOBAL (SN 0130032507 to Present) ... 3121780

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

6.2 GENERAL SPECIFICATIONS

Machine Specifications

SPECIFICATION	10MSP
Gross Machine Weight: <i>(Platform Empty)</i>	1100 lb (499 kg)
Machine Height: <i>(Platform Stowed)</i>	57 in (1.44 m)
Maximum Tire Load: <i>(Per Wheel)</i>	710 lb (322 kg)
Machine Ground Clearance:	1.875 in (47.6 mm)
Machine Turning Radius: <i>(Circle)</i>	65 in (165 cm)
Tilt Indicator Setting:	1.5°
Maximum Travel Grade (Gradeability): <i>(Platform STOWED ONLY)</i>	15% (8.5°)
Maximum Travel Grade (Side Slope): <i>(Platform STOWED ONLY)</i>	5°
Machine Base - Overall: <i>(Width x Length)</i>	29.5 in x 60 in (75 cm x 152 cm)

SPECIFICATION	10MSP
* Maximum Drive Speeds: <i>(Operator Variable)</i>	0.5 - 3.4 mph (0.8 - 5.5 kph)
* Machines from SN 0130032507 to present have a maximum drive speed of 5 mph (8 kph) when the platform is stowed.	
Maximum Operating Wind Speed:	ANSI/CSA: 28 mph (12.5 m/s) CE/AUS: 0 mph (0 m/s) <i>(For indoor use only)</i>
Maximum Horizontal Manual Side Force: <i>(Platform fully extended with Maximum load)</i>	ANSI/CSA: 100 lbs (445 N) CE/AUS/JPN: 200 N (45 lbs)
Maximum Hydraulic System Pressure: <i>(Recommended initial setting)</i>	1800 PSI (124 Bars)
Hydraulic System Capacity:	5 qts U.S. (4.7 L)
Hydraulic Reservoir Capacity:	1 gal (3.78 L)
Machine Component Weight:	Platform Weight: 75 lb (34 kg) Battery: <i>(per battery)</i> 12V - 65.7 lb (29.8 kg) 6V - 64 lb (29 kg) Front Hood: 12 lb (5.4 kg)

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

Electrical Specifications

SPECIFICATION	10MSP
System Voltage:	24 Volts DC
Battery Specifications:	Battery Type: AGM (VRLA) (Sealed)
	Voltage: 4- 6 V DC; OR 2- 12 V DC
	Amp Hour (AH) Rating: 6V - 210 Amp Hr. @ 20 Hr. 12V - 100 Amp Hr. @ 20 Hr.
Battery Charger:	Input: 120/240 V AC - 50/60 Hz - Voltage Selectable
	Output: 24 V, 20 Amp Output - with 2 Amp Finish

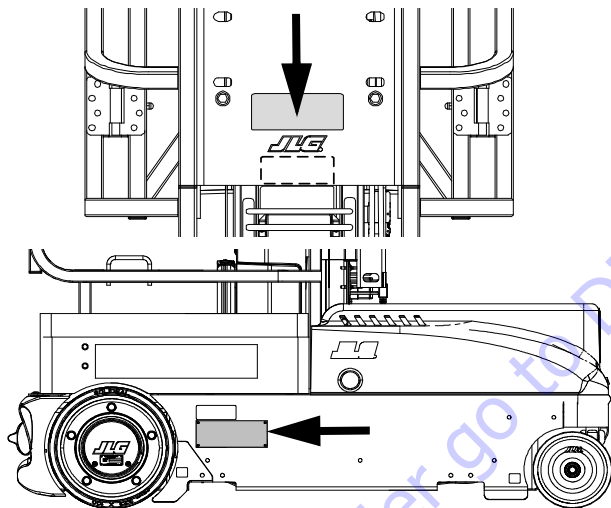
Platform Data

SPECIFICATION	10MSP
Occupants: <i>(Persons allowed in Platform)</i>	1
Maximum Work Load (Capacity):	Platform: 350 lb (160 kg)
	Manual Material Tray: 250 lb (115 kg)
	Power Material Tray: 200 lb (90 kg)
Carry Deck Capacity:	250 lb (115 kg)
Platform Entry Height: <i>(Ground to Platform Floor)</i>	13.75 in (34.9 cm)
Platform Height - Mast Fully Extended - <i>(Ground to Platform Floor):</i>	10 ft (3 m) *7 ft (2 m)
Platform Cycle Performance: <i>(w/max. rated load)</i>	Lift Up: 13 sec
	Lift Down: 9- 13 sec
*Only on machines equipped with the 7 ft. platform height limit OPTION.	

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

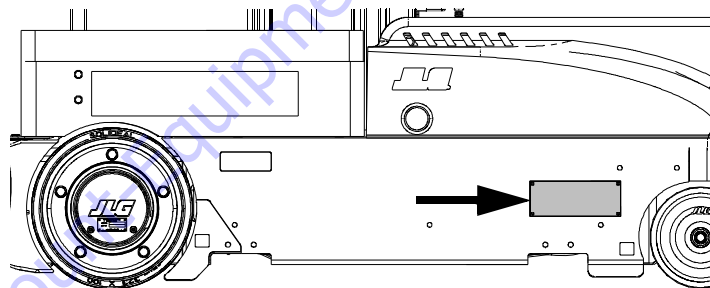
Serial Number Location

For machine identification, the serial number is stamped into a nameplate affixed to the machine. Machines prior to SN 0130032507 may have a serial number plate located at either two locations below:



**Figure 6-1. Serial Number Plate Locations
(Prior to SN 0130032507)**

The serial number plate for machines from SN 0130032507 to present is located on the right side of the machine behind the caster wheel.



**Figure 6-2. Serial Number Plate Location
(SN 0130032507 to Present)**

6.3 OPERATOR MAINTENANCE

Lubrication

Hydraulic Oil (HO)

HYDRAULIC SYSTEM OPERATING TEMPERATURE RANGE	SAE VISCOSITY GRADE
+0°F to +180°F (-18°C to +83°C)	10W
+0°F to +210°F (-18°C to +99°C)	10W-20, 10W-30
+50°F to +210°F (+10°C to +99°C)	20W-20

NOTE: Hydraulic oils must have anti-wear qualities at least to API Service Classification GL-3, and sufficient chemical stability for mobile hydraulic system service.

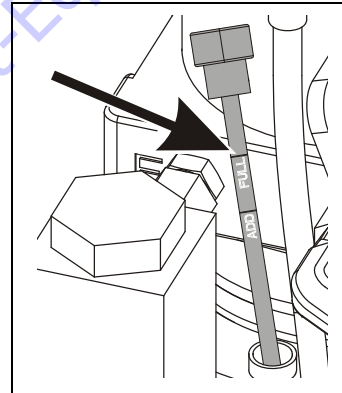
NOTE: Aside from JLG recommendations, it is not advisable to mix oils of different brands or types, as they may not contain the same required additives or be of comparable viscosities.

The hydraulic oil level in the pump reservoir can vary with oil temperature (i.e., the oil level in a cold machine may not be up to the FULL line on the dipstick). Cycle the mast up and down a few times to get a more accurate reading on the dipstick. Once the hydraulic oil is warmed, check the dipstick reading.

It should be up to or close to the FULL line on the dipstick.

- DO NOT FILL PAST THE FULL LINE.
- ALWAYS ADD oil if level is at or below the ADD line.

NOTE: If hydraulic oil is to be added, CHECK THE HYDRAULIC OIL DECAL located on the right side frame, opposite the pump assembly, for hydraulic oil type and specification. DO NOT OVERFILL.



The hydraulic oil level in the reservoir located on the hydraulic pump assembly should read to or close to the FULL LINE on the Hydraulic Reservoir dip stick when hydraulic oil is at operating temperature.

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

Table 6-1. Mobilfluid 424 Specs

SAE Grade	10W30
Gravity, API	29.0
Density, Lb/Gal. 60°F	7.35
Pour Point, Max	-46°F (-43°C)
Flash Point, Min.	442°F (228°C)
Viscosity	
Brookfield, cP at -18°C	2700
at 40°C	55 cSt
at 100°C	9.3 cSt
Viscosity Index	152

Table 6-2. UCon Hydrolube HP-5046 Specs

pH	9.1
Specific Gravity, 20/20°F	1.082
Pour Point, °C(°F)	<-50(<58)
Appearance	Red Liquid
Viscosity	
at 0°C (32°F)	340cST(1600SUS)
at 40°C (104°F)	46cST(215SUS)
at 65°C (150°F)	22cST(106SUS)
Viscosity Index	170

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

Table 6-3. Lubrication Specifications

KEY	SPECIFICATIONS
MPG-	Multipurpose Grease having a minimum dripping point of 350°F. Excellent water resistance and adhesive qualities, and being of extreme pressure type. (Timken OK 40 pounds minimum.)
EPGL-	Extreme Pressure Gear Lube (oil) meeting API service classification GL-5 or MIL-Spec MIL-L-2105.
HO-	Hydraulic Oil. ISO-Vg grade 32, 46.
CL-	Chain Lube. Use a good quality chain lubricant.

NOTE: Refer to Table 6-4. for specific lubrication locations on machine.

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

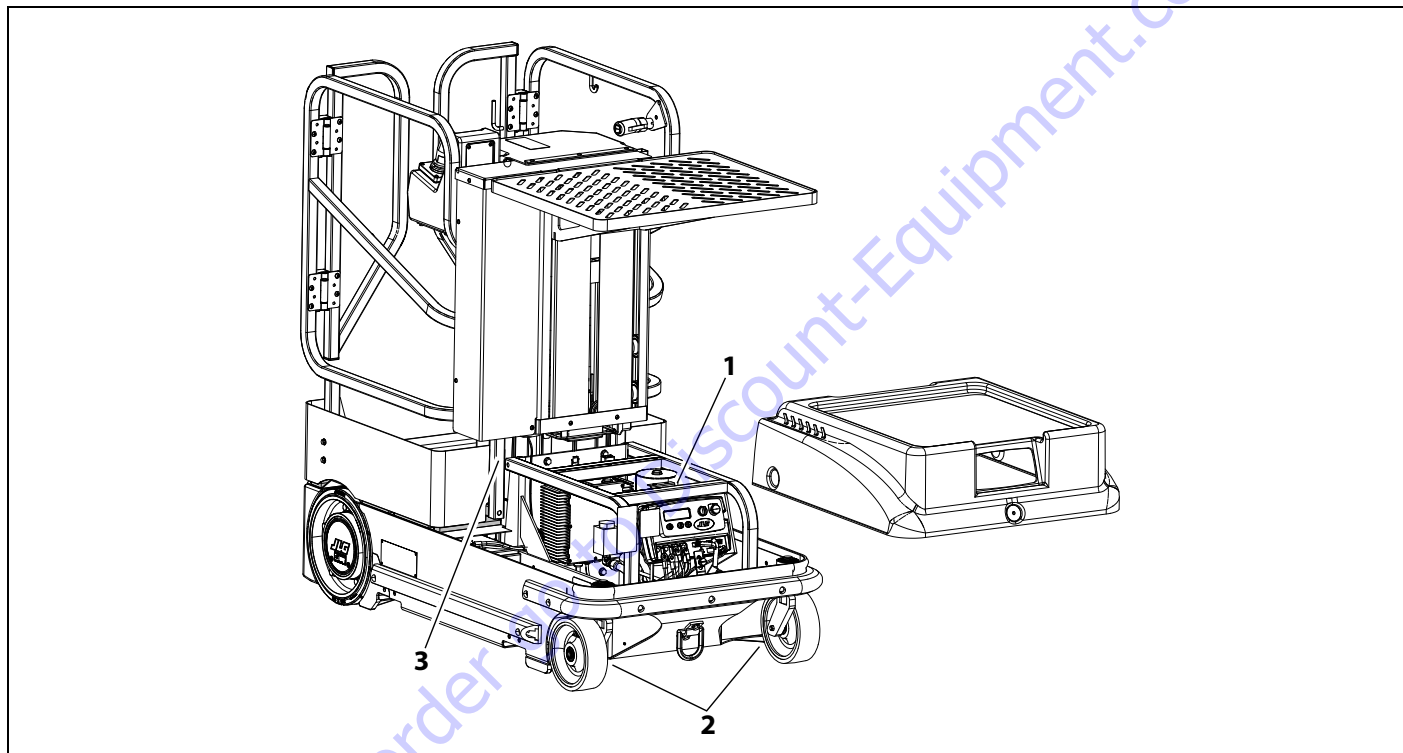


Figure 6-3. Lubrication Points

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

Table 6-4. Lubrication Intervals for Various Components

ITEM	COMPONENT	NO/TYPE LUBE POINTS	LUBE/METHOD	INTERVAL (See Note)				COMMENTS
				3 MONTHS	6 MONTHS	1 YEAR	2 YEARS	
1	Hydraulic Oil	Fill To Full Line on Dipstick - 5 Qt. Reservoir	HO - Check Hyd. Oil Level HO - Change Hyd. Oil				√	Check fluid level every day. Change hydraulic oil every 2 years. NOTE: Prior to checking hydraulic oil level, operate machine through one complete cycle of lift function (full up and down). Failure to do so will result in incorrect oil level reading on the hydraulic reservoir.
2	Swivel Raceways	—	MPG					Upper: Permanently Sealed. Lower: Repack if Serviced.
3	Mast Chains	2 - Per Section	CL - Brush or Spray		√			Inspect, lubricate if dry or rusting.
Key to Lubricants: MPG - Multipurpose Grease HO - Hydraulic Oil - ISO-Vg grade 32, 46 GEAR OIL - Good Quality Worm Gear Oil - SAE90 - AGMA#5 - EP Compounded CL - Chain Lube. Use a good quality chain lubricant								
NOTE: Recommended lubricating intervals are based on normal use. If machine is subjected to severe operating conditions, such as a high number of cycles, location, corrosive/dirty environment, etc., user must adjust lubricating requirements accordingly.								

6.4 BATTERY MAINTENANCE

The OEM batteries are AGM sealed (VRLA) type so the electrolyte level cannot be checked. However, the battery terminals should be checked periodically for corrosion and tightness.

The batteries (4-battery 6V/each system, or a 2-battery 12V/each system) are located inside the base frame. To access the batteries, remove the hood (carry deck) and the rear cover under the platform.

6.5 TIRES AND WHEELS

Tire Wear and Damage

The tire and rim assemblies installed on machines have been approved by the tire manufacturer for applications in which those products are intended to be used. The tire and rims installed on each product model have been designed for stability requirements, which consist of track width, tire compound, and load capacity. Tire changes such as rim width, centerpiece location, larger or smaller diameter, tire compound, etc., without written manufacturers approval, could result in an unsafe condition regarding stability.

The tires and rims installed on machines are to be inspected daily as part of the daily walk-around inspection. JLG requires that the daily walk-around inspection be performed at each operator change during a shift and at each shift change.

Wheel and Tire Replacement

JLG recommends that any replacement tire be the same size and brand as originally installed on the machine or offered by JLG as an approved replacement. Please refer to the JLG Parts Manual for the part number of the approved tires for a particular machine model.

If any of the following is discovered during tire inspection, measures must be taken to remove the JLG product from service immediately. Arrangements must be made for replacement of the tire(s) or tire assembly(s). Both tires/wheels on the same axle must be replaced:

- If the overall diameter of the tire is less than one of the following:

100 x 323 Tire – 12.25 in. (311mm) minimum

- If any uneven wear is discovered.

A tire with significant damage in the tread area or sidewall requires immediate evaluation before placing the machine into service. If a cut, tear, chunk, or other discrepancy exceeds any one or more of the following dimensions, the tire must be replaced:

3.0 in. (76 mm) long
0.75 in. (19 mm) wide
0.75 in. (19 mm) deep

- If the metal wheel is visible at any point through the tread area of the tire.

If more than one discrepancy exists in any quadrant of the wheel (within 90 degrees of one another).

Wheel Installation

It is extremely important to apply and maintain proper wheel mounting torque.

⚠ WARNING

WHEEL BOLTS MUST BE INSTALLED AND MAINTAINED AT THE PROPER TORQUE TO PREVENT LOOSE WHEELS, BROKEN WHEEL BOLTS, AND POSSIBLE SEPARATION OF WHEEL FROM THE AXLE. BE SURE TO USE ONLY THE WHEEL BOLTS MATCHED TO THE CONE ANGLE OF THE WHEEL.

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

Tighten the wheel bolts to the proper torque to prevent wheels from coming loose. Use a torque wrench to tighten the fasteners. If a torque wrench is unavailable, tighten the fasteners with a lug wrench, then immediately have a service garage or dealer tighten the wheel bolts to the proper torque. Over-tightening will result in breaking the wheel bolts or permanently deforming the mounting holes in the wheels. The proper procedure for attaching wheels is as follows:

1. Start all wheel bolts by hand to prevent cross threading. DO NOT use a lubricant on threads or nuts.
2. Tighten wheel bolts in the following sequence.

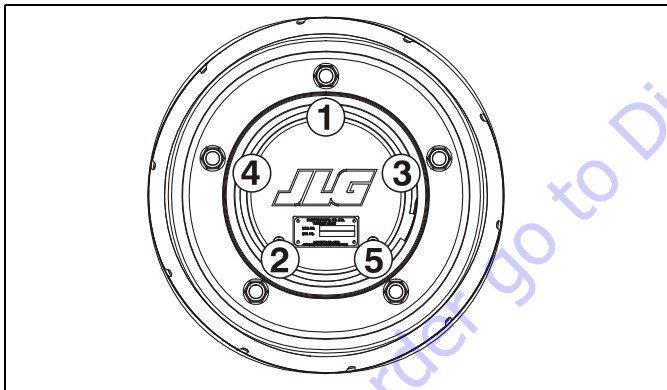


Figure 6-4. Wheel Bolt Tightening Sequence

3. The tightening of the wheel bolts should be done in stages. Following the recommended sequence, tighten wheel bolts per wheel torque.

Table 6-5. Wheel Torque Chart

TORQUE SEQUENCE		
1st Stage	2nd Stage	3rd Stage
20-30 ft lb (28-42 Nm)	65-80 ft lb (91-112 Nm)	105-120 ft lb (142-163 Nm)

4. Wheel bolts should be torqued after the first 50 hours of operation and after each wheel removal. Check torque every 3 months or 150 hours of operation.

6.6 GROUND CONTROL STATION - PROGRAMMING

General

The Ground Control Station on this machine allows on-board programming of various component and control function personality settings.

Programming may be required under circumstances such as:

- The Ground Control Station module has been replaced and optional equipment on the machine needs to be enabled.
- Optional equipment has been added to the machine in the field and a function must be enabled before operation.
- Customizing the machine to fit a specific application, such as changing the LCD display language.

Programming Levels

There is one **password protected** programming level available to the Operator:

- **Level-3:** Operator's Settings - **Level-3 Password: 33271**

Operator Programming Mode

In the Operator Level Programming Mode the following items are shown on the main menu:

- Tilt Sensor
- Program

Tilt Sensor

Allows viewing current tilt sensor - individual X and Y direction degree reading.

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

Programming Items

Allows programming of the items shown in Table 6-4. The following is a brief explanation of each programming item.

NOTE: *There are two production modules available at this time, one for North/South American and European languages, and one for Asian languages. All programmable items between these modules are identical with the exception of language selection.*

- **Back To Main (Menu)** - When selected, will return to main level menu.
- **Set Language** - Selects the language that text on the LCD screen will be displayed.
- **Set Sleep Time** - Allows setting the length of time the machine will remain powered up without control input before powering itself down.
- **Set Polarity of Keypad Code** - Turns ON or OFF the Programmable Security Lock switch circuit, if equipped.
- **Enable Detection of Horn Open Circuit** - Enables horn electrical circuit to be turned ON (YES) or OFF (NO) if machine is equipped with a horn.
- **Enable Detection of Beacon Open Circuit** - Enables mast/base beacon strobe electrical circuits to be turned ON (YES) or OFF (NO) if machine is equipped with either or both beacon strobes.
- **Forward Alarm Disable** - When turned ON (YES) will disable the alarm when driving forward.

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

Table 6-6. Programmable Settings and Factory Presets

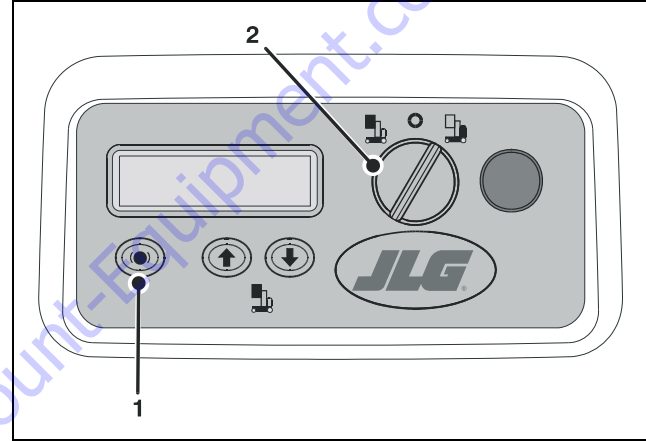
LEVEL	PROGRAMMABLE ITEM	FACTORY PRESET	SETTING RANGE										
3	Back to Main	—	Return to Main Menu										
3	Set Language <i>NOTE: There are two production modules available at this time, one for North/South America and European Languages, and one for Asian Languages.</i>	1	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. English</td> <td style="width: 50%;">6. Italian</td> </tr> <tr> <td>2. German</td> <td>7. Swedish</td> </tr> <tr> <td>3. Dutch</td> <td>8. Finnish</td> </tr> <tr> <td>4. French</td> <td></td> </tr> <tr> <td>5. Spanish</td> <td></td> </tr> </table>	1. English	6. Italian	2. German	7. Swedish	3. Dutch	8. Finnish	4. French		5. Spanish	
		1. English	6. Italian										
2. German	7. Swedish												
3. Dutch	8. Finnish												
4. French													
5. Spanish													
2	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">9. English</td> <td style="width: 50%;">11. Japanese</td> </tr> <tr> <td>10. Chinese</td> <td></td> </tr> </table>	9. English	11. Japanese	10. Chinese									
9. English	11. Japanese												
10. Chinese													
3	Set Sleep Time	10 MINS	0 - 60 MINS										
3	Set Polarity of the Keypad Code	LOW	HIGH/LOW										
3	Enable Detection of Horn Open Circuit	NO	YES/NO										
3	Enable Detection of Beacon Open Circuit	NO	YES/NO										
3	Forward Alarm Disable	NO	YES/NO										
<p>On LCD Display: YES = ✓ HIGH = ↑ NO = ✗ LOW = ↓</p>													

SECTION 6 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

Activating Programming Mode

NOTE: If machine does not power up, check that both the Ground Control Station - Emergency Stop Button, and the Platform Control Console - Emergency Stop Button, are in the RESET position.

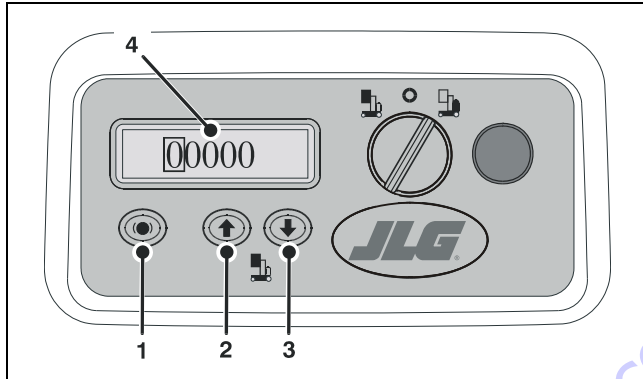
Also if machine is equipped with the (PSL) Programmable Security Lock option, see Section 3 of this Operators Manual for additional machine power-up steps.



Activating Programming Mode

1. With machine power OFF, press and hold the Brake Release Button (1) on the Ground Control Station.
2. While holding the Brake Release Button in, power machine up by turning the Main Power Selector Switch (2), to either the Ground Control or Platform Control Mode.
3. Release the Brake Release Button (1) after machine is powered up. The LCD display should now display five zeros, one with a box around. Continue to next step Entering Password.

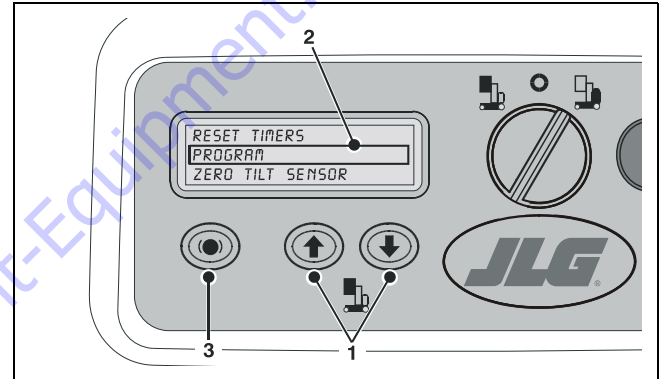
Entering Password



Entering Password (33271)

1. The Brake Release button (1) moves the box (around digit) from left to right to select which digit to change.
2. Platform UP button (2) increases the numerical digit.
3. Platform DOWN button (3) decreases the numerical digit.
4. Change all five digits (4) to match password level, then press the Brake Release button (1) again.

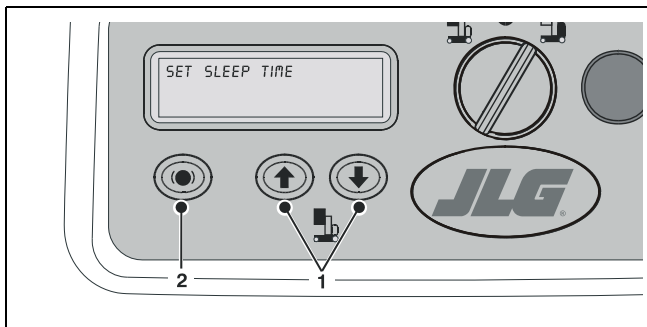
Programming Mode Selection



Programming Mode Selection

1. Use Platform UP/DOWN buttons (1) to move the selection box (2) up or down to select item to program.
2. Press the Brake Release button (3) to enter selected mode then move on to Selecting Programmable Item to Adjust.

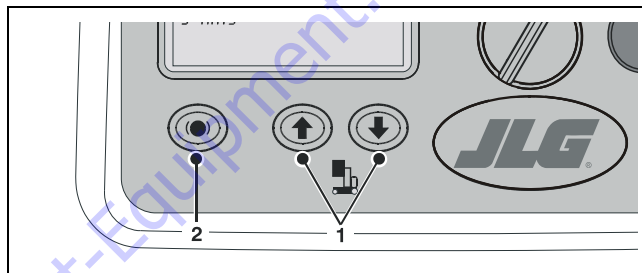
Selecting Programmable Item to Adjust



Selecting Programmable Item to Adjust

1. Use the Platform UP/DOWN buttons (1) to scroll through the list of available programmable items in the programming level.
2. Once a programmable item to be adjusted is selected, press the Brake Release button (2) to enter that settings' adjustment mode.

Adjusting Programmable Setting



Adjusting Programmable Setting

1. Adjust the programmable setting using the Platform UP/DOWN buttons (1), see Table 6-6. for range of settings for that item.
2. Once parameter is set for the programmable item, press the Brake Release button (2), this will enter the parameter and return the user to the Programmable Settings Menu.

TO EXIT Programming Mode after adjusting programmable settings, power machine down with either the Main Power Selector Switch or Emergency Stop Button.

6.7 DRIVE MOTOR BRUSH WEAR - WARNING INDICATION

The machines drive motors include brush wear sensors that activate a warning indicating the drive motor brushes will require replacement soon. This warning protects the drive motors from damage due to extreme brush wear.

When the brush wear warning is activated the Ground Control Station LCD screen will indicate a fault code of 6, also the hourmeter is set to countdown 25 hours of (DRIVE) operation remaining.

The Platform Control LEDs will indicate this warning with 8 flashing LEDs and an intermittent beep.

NOTE: *Only the drive function when used will affect the hour meter count down once the warning has been activated. The machine will operate normally until the last 10 seconds of the 25 hour countdown.*

During the last 10 seconds of the 25 hour (DRIVE) countdown the machine will only drive in creep/turtle drive mode and platform lift up will be disabled. At this point cycling power on/off will only repeat the final 10 second mode cycle.

The machine will not operate normally until the drive motor brushes are replaced (*repositioning the brush warning sensors*), and the Ground Control Station is programmed to reset the Brush Wear - Warning Timer per the Service and Maintenance Manual.

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