

OPERATION & SAFETY MANUAL



PA-1030

MOBILE ELEVATING WORK PLATFORM

SUPO-743 | REV A

If there is a question about application and/or operation, contact:

Original instructions are written in English.

The purpose of this Operations and Safety Manual is to provide users with the instructions and operating procedures essential to properly and safely operate the Mobile Elevating Work Platform (MEWP) for its intended purpose.

This manual is considered part of the machine and must be stored on the machine at all times.

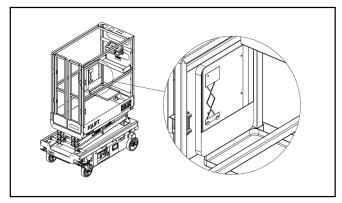


FIGURE 1: Manual Storage Location



THE OPERATION AND SAFETY MANUAL MUST BE READ AND UNDERSTOOD PRIOR TO OPERATING THE MACHINE.

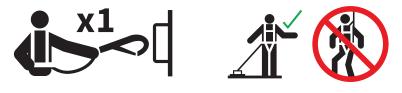
- The user/operator should not accept operating responsibility until the handbook has been read and understood as well as having operated the MEWP under supervision of an experienced and qualified operator.
- Because the manufacturer has no direct control over machine application and operation, proper safety practices are the responsibility of the user and all operating personnel.

Fall Protection Notice:

The guardrail system around the perimeter of the platform is the fall protection system for Mobile Elevating Work Platforms per the MEWP standard. It is prohibited to use this MEWP with any portion--or all--of the guardrails removed. Anchorage points are provided for work positioning restraints only. Lanyard lengths are to be determined by the operator/owner to restrict the operator to the confines within the guardrail system.



USE OF FALL ARREST SYSTEMS ATTACHED TO ANCHORAGE POINTS ON EQUIPMENT MAY CAUSE THE MACHINE TO TIP, RESULTING IN SERIOUS INJURY OR DEATH.



HY-BRID LIFTS

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Revisions:

REV A:	March 2019

1.1 | PRODUCT INFORMATION

Custom Equipment's Hy-Brid Scissor Lift is an aerial work platform designed to be safe and reliable. The purpose of the machine is to elevate personnel, along with their necessary tools and materials. The machine is intended for indoor use (no wind load). Manufacturer approval is required for any use other than the intended use.



ANY MODIFICATION OF THIS MACHINE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER IS PROHIBITED.

1.2 | STANDARDS CONFORMITY

Models PA-1030 has been assessed, tested and approved in accordance with the requirements of ANSI/SIA A92.3-2006. Manufacturer: Custom Equipment, LLC 2647 Hwy 175 Richfield, WI 53076 USA Phone: +1-262-644-1300 Fax: +1-262-644-1320 www.hybridlifts.com

1.3 MACHINE SPECIFICATIONS	PA-103	0		
Working Height (maximum)	16.3	ft.	4.97	m
Platform Height (maximum)	9.7	ft.	2.97	m
Platform Height (minimum)	25.2	in.	64.0	cm
Stowed Height	68.7	in.	174.5	cm
Ground Clearance Lowered	2.6	in.	6.6	cm
Overall Length	51.3	in.	130.3	cm
Overall Width	29.8	in.	75.7	cm
Platform Length (Retracted, Inside)	40.9	in.	103.9	cm
Platform Width (Retracted, Inside)	20.5	in.	52.1	cm
Platform Extension	N/A	in.	N/A	cm
Guard Rail Height	43.4	in.	110.2	cm
Step Height	13.1	in.	33.3	cm
Wheel Base	40.0	in.	101.6	cm
Wheel Track	25.8	in.	65.5	cm
Tire Size -Front	7.9	in.	20.0	cm
Tire Size -Rear	7.9	in.	20.0	cm
Turning Radius (Inside)	Zero	in.	Zero	cm
Turning Radius (Outside)	48.8	in.	124.0	cm
Gradeability (Stowed Position)	NA			
Drive Speed Max (Platform Elevated)	NA			
Drive Speed Max (Platform Lowered)	NA			
Lift/Lower Speed	18/20 sec			
Power System-Voltage	12V DC			
Batteries-Deep Cycle Marine	(1) 12V, Gro	oup 27 WET CELL OR	AGM	
Hydraulic Pressure (max)	1800.0	psi	12410.6	kPa
Hydraulic Fluid Capacity	0.8	gal	2.8	L
Platform Capacity	529.2	lb.	240	kg
Rated Occupancy	1	Persons	1	Persons
Extension Capacity	N/A	1 6130113	 N/A	1 0130113
Horizontal/Manual Force	79.3	lb.	353	N
Wind		Conditions/Indoor U		
Rated Slope	Level Surfa		se only	
Till Sensor Activated	N/A			
Temperature	-4° F-104°		-20° C-40° C	
Vibration	8.2 ft/s2 m		2.5 m/s2 max	
Sound		mal Use/100 dB Alarr		
Machine Weight (Unloaded) (Approx.)	893.0	lb.	405.1	kg
Minimum Wheel Load-Contact Pressure	223.3	psi	1539.6	kPa
Maximum Wheel Load-Contact Pressure	401.1	psi	2765.5	kPa
Minimum Machine Loading-Floor Pressure	96.7	psf	4.6	kPa
Maximum Machine Loading-Floor Pressure	154.0	psf	7.4	kPa

2.1 | SAFETY SYMBOLS

Warnings and instructions that have a direct impact on safety are identified with the following signals:



FAILURE TO FOLLOW THIS WARNING WILL CAUSE DEATH OR PERSONAL INJURY.

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



FAILURE TO FOLLOW THIS WARNING MAY CAUSE DEATH OR PERSONAL INJURY. "WARNING" indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury



FAILURE TO FOLLOW THIS WARNING MAY CAUSE INJURY OR DAMAGE EQUIPMENT "CAUTION" indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury or damage to equipment

2.2 | GENERAL RULES AND PRECAUTIONS

Custom Equipment, LLC designed the Hy-Brid Lift push-around scissor lift to be safe and reliable. It is intended for elevating personnel, along with their necessary tools and materials to overhead work locations. Vibration does not create significant hazards on this machine.

An operator of any type of work platform is subject to certain hazards that cannot be protected by mechanical means. It is therefore essential that operators be competent, careful, physically and mentally fit, and thoroughly trained in safe operation of this machine. Although Custom Equipment, LLC conforms to specified ANSI & OSHA requirements, it is the responsibility of the owner to instruct operators with the safety requirements made not only by Custom Equipment, LLC, but by the various safety boards in your area, as well as additional requirements set forth by ANSI & OSHA If you come across a situation that you think might be unsafe, stop the platform and request further information from qualified sources before proceeding.



DO NOT OPERATE MACHINE NEAR POWER LINES. THE PLATFORM AND ENCLOSURES ARE NOT INSULATED. EQUIPMENT IS ONLY AS SAFE AS THE OPERATOR.

-HY-BRID LIFTS -



NEVER REACH BETWEEN SCISSORS LINKS OR PROP UP PLATFORM.

2.3 | MAINTENANCE LOCK

The maintenance lock must be placed into position whenever the machine is being serviced in a partially raised position. Serious injury and/or death could result if maintenance lock is not used properly.

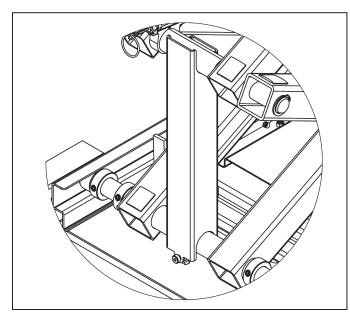


FIGURE 2: Maintenance Lock Use

2.4 | SAFETY FEATURES

- Puncture-proof wheels.
- Guardrails-43.83 in. height with 6 in. kick plates
- Non-slip deck.
- Entrance gate.
- Automatic brake when elevated
- Free descent protection. A pressure compensated flow control valve is installed in the hydraulic circuit to prevent the platform from descending in case of a ruptured hydraulic hose. The platform is hydraulically locked with a check valve and has controlled descent when valve activates.
- Decals. Danger, Caution, and Warning decals are displayed at various locations on this unit
- Key Switch Security. A key switch is required to prevent unauthorized use.

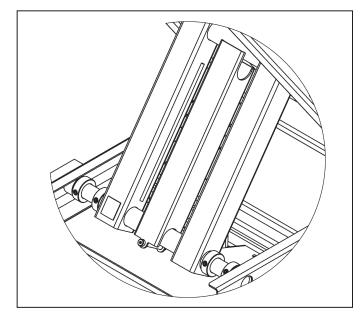


FIGURE 3: Maintenance Lock Storage

2.5 | SAFETY CONTROLS & INDICATORS

Emergency Stop

This lift is equipped with two emergency stop switches, one at the platform control and one at the base control, that when activated, will render the unit inoperable until reset. To reset, pull the button out. (See the "Operating Controls & Indicators" section of this handbook for more detail.)



PUSHING THE EMERGENCY STOP BUTTON WILL STOP MOVEMENT IMMEDIATELY. THIS MAY CAUSE UNEXPECTED PLATFORM MOVEMENT AS THE MACHINE COMES TO A SUDDEN STOP. BRACE YOURSELF AND SECURE OBJECTS ON THE PLATFORM DURING OPERATION OF THE MACHINE.

Descent Alarm & Lowering Interrupt

An audible alarm sounds when the machine is lowering.

When lowering the platform, the platform will stop when the ends of the scissors are approximately 2 inches apart for 3 seconds. The beacon light flashes to indicate the armguard delay. Release. Look around all sides of the scissors to check for persons at risk. Then continue lowering the platform. If elevating platform less than 2 inches, the lift will not descend due to the armguard feature. Elevate the platform higher before lowering, or use the manual override in case of emergency.

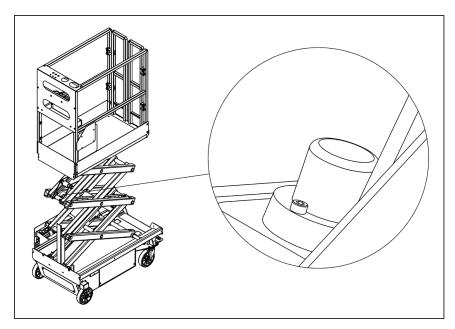


FIGURE 4: Descent Warning Light

Descent Manual Override (Emergency Lowering)

For manually lowering the scissors, a manual valve is provided. To lower the scissors, pull the cable located near the rear of the machine.

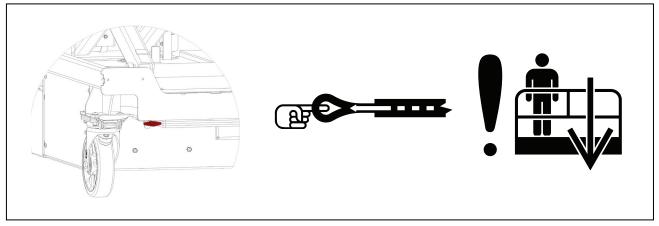


FIGURE 5: Emergency Lowering



IF PLATFORM SHOULD FAIL TO LOWER, DO NOT ATTEMPT TO CLIMB DOWN THE BEAM ASSEMBLY. SERIOUS INJURY MAY RESULT. HAVE AN EXPERIENCED OPERATOR USE THE EMERGENCY LOWERING PROCEDURE TO SAFELY LOWER THE PLATFORM.

Tilt Sensor

If the chassis is tilted more than 1.5°, elevating function is prevented, and an alarm sounds. Lower the platform and move to a hard, level surface before elevating.

Load Sensing

Movement is inhibited when the load exceeds the rated load and elevating is attempted from the stowed position. When the platform is stowed, the overload indicator lights up to indicate that the load control system is functional. Then attempting to elevate, if the load is less than rated load, the light will stop, and elevating may continue. If the rated load is exceeded, the light will continue and the platform will not elevate. Remove the excess load before continuing operation.

Automatic Brakes

When elevated, a brake is automatically applied to the rigid wheels. The manual parking brake on the swivel casters should also be used. (See the "Operation" section of this manual).

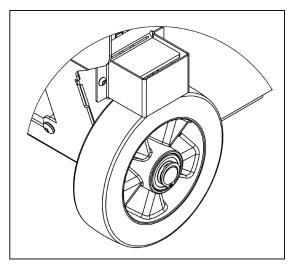


FIGURE 6: Automatic Brake

2.6 | SAFETY GUIDELINES

Only qualified operators may operate this unit.

ALWAYS	read and understand the Operation and Safety Manual before operating.			
ALWAYS	understand all decals and warning labels on unit.			
ALWAYS	prevent unauthorized use; when unit is not in use, remove key.			
ALWAYS	wear necessary approved personal protective equipment (PPE), i.e. head gear.			
ALWAYS	report any misuse of equipment to proper personnel.			
NEVER	work on platform if your physical condition is such that you feel dizzy or unsteady.			

Use machine only for purposes for which it was intended.

ALWAYS	distribute load evenly over platform floor area.		
NEVER	use the lift as a crane (by suspending a load from the platform).		
NEVER	exceed the load capabilities of the platform. (See the "Product Description" section of this handbook)		
NEVER	use unit as electrical grounds for arc welding.		
NEVER	override any hydraulic, mechanical, or electrical safety devices.		

Check job site for unsafe working conditions.

ALWAYS	watch out for others. Keep others clear of operating platform.
ALWAYS	avoid contact with fixed (buildings, etc.) or moving (vehicles, cranes, etc.) objects. Check work area for overhead obstructions or possible hazards.
ALWAYS	follow any applicable national traffic regulations.
ALWAYS	be on hard level surface before elevating
ALWAYS	maintain a clearance between any part of the machine, or its load, and any electrical line or apparatus. Follow local power line clearance regulations.
NEVER	allow others to pass under a raised platform or position the platform over someone.
NEVER	use outdoors. Lift is not designed for windy conditions or electrical storms.
NEVER	operate on incline or uneven surface.
NEVER	operate machine near power lines. The platform and enclosures are not insulated.
NEVER	move the unit on a slope steep enough that the unit may become uncontrollable.

ALWAYS	make sure entry gate is secured before operating machine from the platform.			
ALWAYS	ecure tools and materials.			
ALWAYS	maintain a firm footing on the platform floor and work only within the platform area.			
NEVER	use ladders or scaffolding on the platform to obtain greater height.			
NEVER	enter or exit platform while machine is in motion.			
NEVER	mount or dismount a raised platform.			
NEVER	move the unit when in the elevated position.			
NEVER	nove the unit with a person on the platform.			
NEVER	elt or tie off to an adjacent structure.			

Before operation, ensure that the machine is properly serviced.

	· · · · ·
ALWAYS	perform inspections and preventative maintenance at the recommended intervals. (See the "Daily Maintenance" section of this handbook)
ALWAYS	use the maintenance lock when performing all types of maintenance procedures.
NEVER	use machine if it is not working properly.
NEVER	smoke while charging the battery.

2.7 | PROPOSITION 65



THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM

For more information about Proposition 65 visit: http://www.p65warnings.ca.gov/

SECTION 3 | DECALS

3.1 | DECAL LOCATION

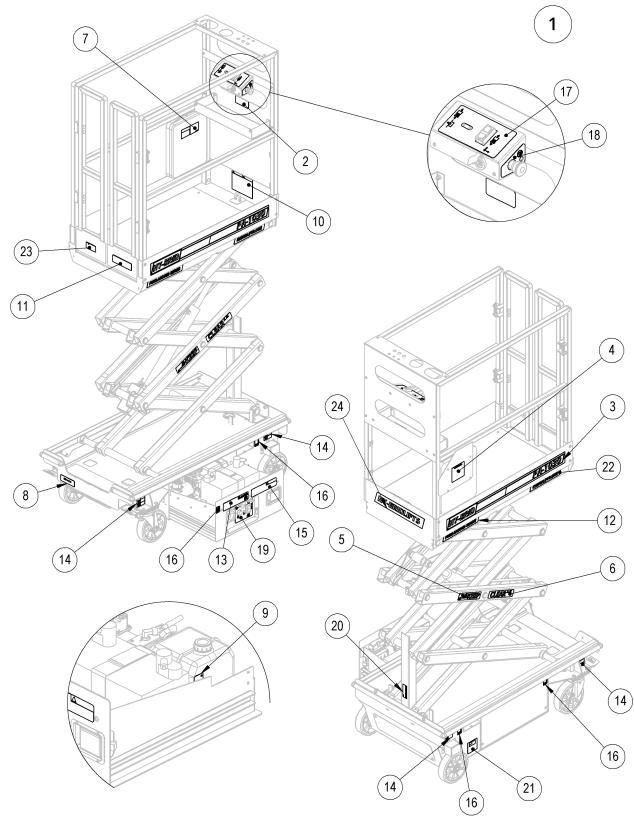


FIGURE 7: Decal Locations

3.2 | DECAL DESCRIPTIONS

1 177-21-080-55-K DECALS,PA-1030 1 2 DE1204 DECAL,CAPACITY,TOOL TRAY 1 3 DE1201 DECAL,MODEL PA-1030 2 4 DE1205 DECAL,PA-1030 INFO 1 5 DE1101 DECAL,REEP 2 6 DE1102 DECAL,CLEAR 2 7 DE1203 DECAL,E-DOWN CABLE 1 9 DE1006 DECAL,FODWN CABLE 1 9 DE1008 DECAL,TOE BOARD, 1 10 DE1206 DECAL,CAPACITY,530#,1P,I,WO/ 1 11 DE1202 DECAL,CAPACITY,530#,1P,I,WO/ 1 12 DE1231 DECAL,SERIES PA 2 13 DE1001 DECAL,WR DANGERS 1 14 DE1005 DECAL,WR WARNINGS 4 15 DE1004 DECAL,FORK 4 16 DE1003 DECAL,FORK 4 17 DE1228 DECAL,CTL UPR 1 18 DE1229	Item #	Part Number	Decal Meaning or Designation	Comments	Qty	Superseded By
3 DE1201 DECAL,MODEL PA-1030 2 4 DE1205 DECAL,PA-1030 INFO 1 5 DE1101 DECAL,KEEP 2 6 DE1102 DECAL,CLEAR 2 7 DE1203 DECAL,CLEAR 1 8 DE1006 DECAL,F-DOWN CABLE 1 9 DE1008 DECAL,CAPACITY,530#,1PI,WO/ 1 10 DE1206 DECAL,CAPACITY,530#,1PI,WO/ 1 11 DE1202 DECAL,CAPACITY,530#,1PI,WO/ 1 12 DE1231 DECAL,SERIES PA 2 13 DE1001 DECAL,LWR DANGERS 1 14 DE1005 DECAL,LWR WARNINGS 1 15 DE1004 DECAL,CRUK 4 17 DE1228 DECAL,CTL UPR 1 18 DE1229 DECAL,CTL UPR E-STOP 1 19 DE1026 DECAL,CTL UPR 1 20 DE1007 DECAL,MADE IN USA 2 21 DECAL,MADE IN USA </td <td>1</td> <td>177-21-080-55-К</td> <td>DECALS,PA-1030</td> <td></td> <td>1</td> <td></td>	1	177-21-080-55-К	DECALS,PA-1030		1	
4 DE1205 DECAL,PA-1030 INFO 1 5 DE1101 DECAL,KEEP 2 6 DE1102 DECAL,CLEAR 2 7 DE1203 DECAL,MANUAL BOX 1 8 DE1006 DECAL,E-DOWN CABLE 1 9 DE1008 DECAL,HYDR FLUID 1 10 DE1206 DECAL,CAPACITY,530#,1PJ,WO/ 1 11 DE1202 DECAL,CAPACITY,530#,1PJ,WO/ 1 12 DE1231 DECAL,SERIES PA 2 13 DE1001 DECAL,WW DANGERS 1 14 DE1005 DECAL,FORK 4 15 DE1004 DECAL,FORK 4 17 DE1228 DECAL,CTL UPR 1 18 DE1229 DECAL,CTL UPR E-STOP 1 19 DE1026 DECAL,CTL LWR 1 20 DE1007 DECAL,MADE IN USA 2 22 DE1221 DECAL,MADE IN USA 2 22 DE1232 DECAL,WEBSITE 2 23 DE1230 DECAL,PROP 65 1	2	DE1204	DECAL,CAPACITY,TOOL TRAY		1	
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6 DE1102 DECAL,CLEAR 2 7 DE1203 DECAL,MANUAL BOX 1 8 DE1006 DECAL,E-DOWN CABLE 1 9 DE1008 DECAL,HYDR FLUID 1 10 DE1206 DECAL,TOE BOARD, 1 11 DE1202 DECAL,CAPACITY,530#,1P,I,WO/ SO 1 12 DE1231 DECAL,SERIES PA 2 13 DE1001 DECAL,WR DANGERS 1 14 DE1005 DECAL,WW RANINGS 1 16 DE1003 DECAL,FORK 4 17 DE1228 DECAL,CTL UPR 1 18 DE1229 DECAL,CTL UPR 1 19 DE1026 DECAL,CTL LWR 1 20 DE1007 DECAL,MAINT LOCK 1 21 DE1221 DECAL,MADE IN USA 2 22 DE1232 DECAL,PROP 65 1	4	DE1205	DECAL,PA-1030 INFO		1	
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9DE1008DECAL,HYDR FLUID110DE1206DECAL,TOE BOARD,111DE1202DECAL,CAPACITY,530#,1P,I,WO/ SO112DE1231DECAL,SERIES PA213DE1001DECAL,LWR DANGERS114DE1005DECAL,WHEEL LOAD PA-1030415DE1004DECAL,FORK416DE1229DECAL,CTL UPR118DE1229DECAL,CTL UPR E-STOP119DE1026DECAL,CTL LWR120DE1007DECAL,MANDE IN USA222DE1232DECAL,WEBSITE223DE1230DECAL,PROP 651	7	DE1203	DECAL, MANUAL BOX		1	
10DE1206DECAL,TOE BOARD,111DE1202DECAL,CAPACITY,530#,1P,I,WO/ SO112DE1231DECAL,SERIES PA213DE1001DECAL,LWR DANGERS114DE1005DECAL,WHEEL LOAD PA-1030415DE1004DECAL,LWR WARNINGS116DE1003DECAL,FORK417DE1228DECAL,CTL UPR118DE1229DECAL,CTL UPR E-STOP119DE1026DECAL,CTL LWR120DE1007DECAL,MADE IN USA221DE1232DECAL,WRESITE223DE1230DECAL,PROP 651	8	DE1006	DECAL,E-DOWN CABLE		1	
11DE1202DECAL,CAPACITY,530#,1P,I,WO/ SO112DE1231DECAL,SERIES PA213DE1001DECAL,LWR DANGERS114DE1005DECAL,WHEEL LOAD PA-1030415DE1004DECAL,LWR WARNINGS116DE1003DECAL,FORK417DE1228DECAL,CTL UPR118DE1229DECAL,CTL UPR E-STOP119DE1026DECAL,CTL LWR120DE1007DECAL,MAINT LOCK121DE1221DECAL,MADE IN USA222DE1232DECAL,PROP 651	9	DE1008	DECAL,HYDR FLUID		1	
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13DE1001DECAL,LWR DANGERS114DE1005DECAL,WHEEL LOAD PA-1030415DE1004DECAL,LWR WARNINGS116DE1003DECAL,FORK417DE1228DECAL,CTL UPR118DE1229DECAL,CTL UPR E-STOP119DE1026DECAL,CTL LWR120DE1007DECAL,MAINT LOCK121DE1221DECAL,MADE IN USA222DE1230DECAL,PROP 651	11	DE1202			1	
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15DE1004DECAL,LWR WARNINGS116DE1003DECAL,FORK417DE1228DECAL,CTL UPR118DE1229DECAL,CTL UPR E-STOP119DE1026DECAL,CTL LWR120DE1007DECAL,MAINT LOCK121DE1221DECAL,MADE IN USA222DE1232DECAL,WEBSITE223DE1230DECAL,PROP 651	13	DE1001	DECAL,LWR DANGERS		1	
16 DE1003 DECAL,FORK 4 17 DE1228 DECAL,CTL UPR 1 18 DE1229 DECAL,CTL UPR E-STOP 1 19 DE1026 DECAL,CTL LWR 1 20 DE1007 DECAL,MAINT LOCK 1 21 DE1221 DECAL,MADE IN USA 2 22 DE1232 DECAL,WEBSITE 2 23 DE1230 DECAL,PROP 65 1	14	DE1005	DECAL,WHEEL LOAD PA-1030		4	
17DE1228DECAL,CTL UPR118DE1229DECAL,CTL UPR E-STOP119DE1026DECAL,CTL LWR120DE1007DECAL,MAINT LOCK121DE1221DECAL,MADE IN USA222DE1232DECAL,WEBSITE223DE1230DECAL,PROP 651	15	DE1004	DECAL,LWR WARNINGS		1	
18DE1229DECAL,CTL UPR E-STOP119DE1026DECAL,CTL LWR120DE1007DECAL,MAINT LOCK121DE1221DECAL,MADE IN USA222DE1232DECAL,WEBSITE223DE1230DECAL,PROP 651	16	DE1003	DECAL,FORK		4	
19 DE1026 DECAL,CTL LWR 1 20 DE1007 DECAL,MAINT LOCK 1 21 DE1221 DECAL,MADE IN USA 2 22 DE1232 DECAL,WEBSITE 2 23 DE1230 DECAL,PROP 65 1	17	DE1228	DECAL,CTL UPR		1	
20 DE1007 DECAL,MAINT LOCK 1 21 DE1221 DECAL,MADE IN USA 2 22 DE1232 DECAL,WEBSITE 2 23 DE1230 DECAL,PROP 65 1	18	DE1229	DECAL,CTL UPR E-STOP		1	
21 DE1221 DECAL,MADE IN USA 2 22 DE1232 DECAL,WEBSITE 2 23 DE1230 DECAL,PROP 65 1	19	DE1026	DECAL,CTL LWR		1	
22 DE1232 DECAL,WEBSITE 2 23 DE1230 DECAL,PROP 65 1	20	DE1007	DECAL, MAINT LOCK		1	
23 DE1230 DECAL, PROP 65 1	21	DE1221	DECAL,MADE IN USA		2	
	22	DE1232	DECAL,WEBSITE		2	
24 DE1207 DECAL,HY-BRID LIFTS 1	23	DE1230	DECAL, PROP 65		1	
	24	DE1207	DECAL, HY-BRID LIFTS		1	

3.3 | DECAL SYMBOL MEANINGS

Meaning
 No Unauthorised Use Do not operate this machine unless you have been trained in safe operation. Training includes complete knowledge of the safety and operating instructions contained in the manufacturer's manual, your employer's work rules, and applicable government regulations. An untrained operator subjects himself and others to death or serious injury.
 Read and understand all dangers and warning in the Operations & Safety Manual before operating this machine. Improper use of this machine could cause death or serious injury. Inspect machine and make sure that it is operating properly, that all name plate and hazard signs are in place and legible, and that the machine is in accordance with the manufacturer's maintenance requirements contained in the operating and maintenance manual and the daily safety checklist.
 Lanyard anchorage point location. Capacity 1 person Lanyard anchorage points are for work positioning restraints only. Use of fall arrest systems attached to anchorage points on mobile equipment may cause machine to tip, resulting in serious injury or death.
 Crushing Hazard Do not enter the space beneath the work platform or scissor structure unless the maintenance lock is in place.
 Refer to Maintenance & Troubleshooting Manual Only qualified service personnel may service the machine. Failure to comply with listed safety precautions may result in machine damage, personnel injury, or death. Replace designated items with manufacturer's specified equipment only. Failure to use these items may cause instability and could void the Warranty.
 Batteries produce explosive gas. Charge batteries in a well-ventilated area. Do not expose sparks or flames. Do not smoke while charging battery.
Battery Charger Power Inlet

SECTION 3 | DECALS

Symbol	Meaning
	• Tip Hazard
	Tip HazardDo not elevate platform on steps
	Tip HazardDo not elevate platform on a slope.
THE E	 Tip Hazard Do not elevate platform on uneven or soft surfaces.
	Indoor Use Only: No Wind Load
	 Electrocution Hazard This machine is not insulated. Maintain safe clearance from electrical lines and apparatus. You must allow for machine sway, rock or sag and electrical lines swaying. This machine does not provide protection from contact with or proximity to an electrically charged conductor. You must maintain a clearance between any part of this machine or its load and any electrical apparatus. Follow local power line regulations. Death or serious injury will result from contact or inadequate clearance.

Symbol	Meaning
	Emergency Lowering
	• For safety and controlled handling, it is not recommended to move the unit on a slope greater than 5°.
	• Fork pocket
	• Hydraulic oil level
רער	Engaging Mechanical Action: Enable Switch

HY-BRID LIFTS -

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4.1 | PRELIMINARY UNPACKING INSTRUCTIONS AND DEALER INSPECTION

Maintenance locks must be engaged prior to inspecting or servicing the unit when the platform is elevated. Inspect machine for any possible damage during shipment; perform a pre-delivery inspection. See checklist in the Maintenance Manual. Reset emergency stop switches, if necessary.

4.2 | STORAGE

After periods of storage, exposure to extremes of ambient conditions-heat, cold, moisture, dust etc., inspect the machine. Refer to the Pre-Delivery/ Frequent Inspection Checklist in the Maintenance Manual.

4.3 | TRANSPORTATION

- Lower the work platform to the down position.
- Turn key switch to off position.
- Check entire machine for loose or unsecured items. Remove any loose items from machine.
- Apply manual brake lock on rear wheels.
- For safety and controlled handling, it is not recommended to move the unit on a slope greater than 5°.

4.4 | FORK LIFT POCKETS

Fork lift pockets are provided on the side of the unit for loading and unloading. When moving machine with a forklift, do not let machine slide along floor. Bring forklift to a stop and then gently lower the machine.

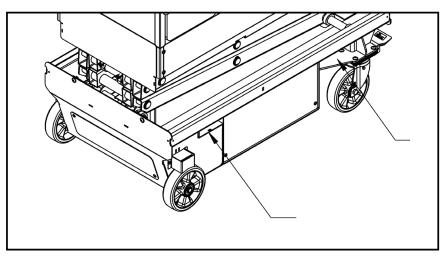
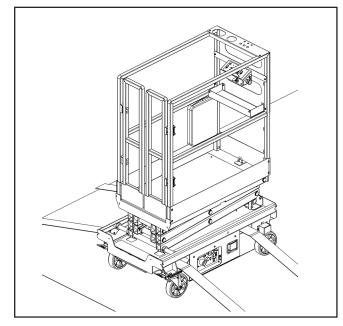


FIGURE 8: Fork Lift Pocket

4.5 | LIFTING AND TIE-DOWN POINTS

Tie-down points are provided in the front and rear of the machine for securing the machine on a trailer or truck bed for transport between places of use. They may also be used as lift points.



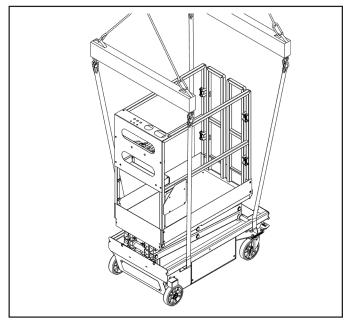
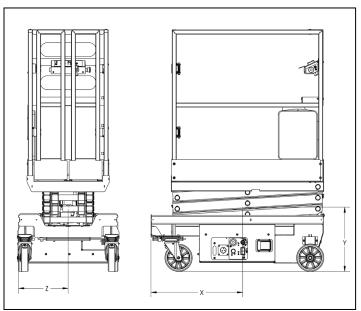


FIGURE 10: Example Sling/Lifting

FIGURE 9: Tie-Down Points



Center of gravity:

- X: 26.4 in.
- Y: 18.5 in.
- Z: 14 in.

FIGURE 11: Center of Gravity

5.1 | BEFORE YOU OPERATE

Before use each day or at the beginning of each shift, the machine shall be given a visual inspection and functional test. Repairs (if any) must be made prior to operating the machine, as it is critical to ensure safe operation of the machine. A checklist for pre-start inspection can be found in the back of this manual.



THE OPERATOR MUST BE AWARE OF THE ENVIRONMENT. DO NOT RAISE THE PLATFORM IF THE MACHINE IS NOT ON A FIRM, LEVEL SURFACE.

- Check that the work area is safe.
- It is not recommended to maneuver the unit on a slope greater than 5°.
- Machine must be on a hard, level, surface before operation.
- Check that bubble level is centered.
- Engage the manual brakes on the rear casters before elevating the platform.
- Ensure that the key in the lower control panel is in the "ON" position for the chassis or platform control.
- Enter the work platform in the stowed position using the constant three point contact method.
- Follow all general rules and precautions stated in this handbook.

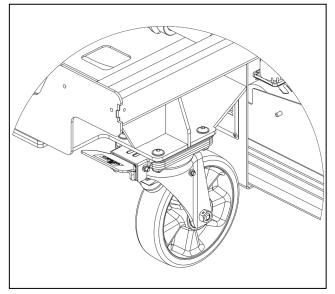


FIGURE 12: Rear Brake

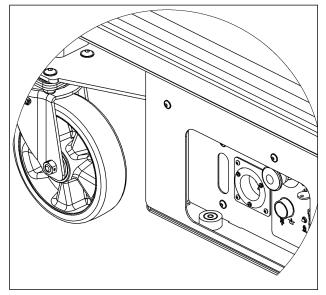


FIGURE 13: Bubble Level

5.2 | OPERATING CONTROLS & INDICATORS

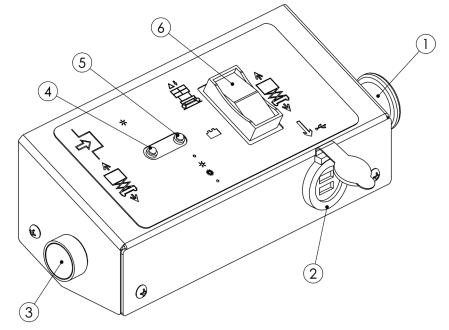


FIGURE 14: Platform Controls

1	Emergency Stop Button	
	Push in to stop all motion. Pull out to reset.	
2	USB Power Port	
3	Enable Button	
	Push in to enable elevate and lower motion.	
4	Overload Indicator Light Illuminates when stowed, beginning to elevate and checking for overload. If machine does not continue elevating and: Battery Indicator Light is on, then charge before continuing operation. Battery Indicator Light is off, remove excess load before continuing operation.	
5	Battery Indicator Light Gives an approximate indication of battery charge:	
	• Not Illuminated: 100% to 40%	
	✤ Fast Flash: 20% to 10%	
	• Steady: Less than 10%	
6	Elevate/Lower Switch Push the top part of the rocker to elevate or the lower part to descend.	

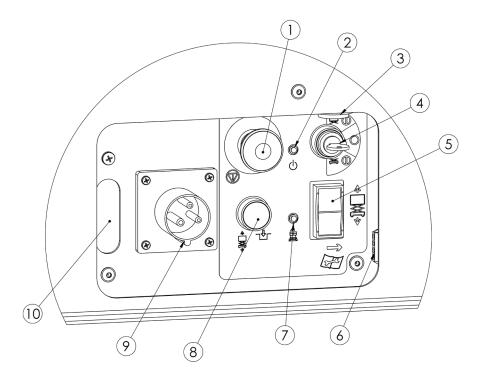


FIGURE 15: Base Controls

1	Emergency Stop Button Push in to stop all motion. Pull out to reset.		
2	Power Indicator Light Illuminates when power is on.		
3	Alarm Alarm sounds for descent, descent delay, or warning that machine is on a slope.		
4	Key Switch Rotate the key to select Off, Platform or Ground Controls. Remove key to prevent unauthorized access.		
5	Elevate/Lower Switch Push the top part of the rocker to elevate or the lower part to descend.		
6	Diagnostic Connection Port Used for connecting EZ Cal diagnostic tool.		
7	Overload Indicator Light Illuminates when stowed, beginning to elevate and checking for overload.		
8	Enable Button Push in to enable elevate and lower motion.		
9	Battery Charger Port See the "Battery Charging" section of this handbook		
10	Charger Light Window See the "Battery Charging" section of this handbook		

5.3 | WHEN WORK IS FINISHED

- When finished with the machine, place the platform in the stowed position.
- Carefully exit the platform using the constant three point contact method.
- NEVER JUMP OFF PLATFORM.
- Park the machine on a level surface.
- Remove key from lower control panel to prevent unauthorized use

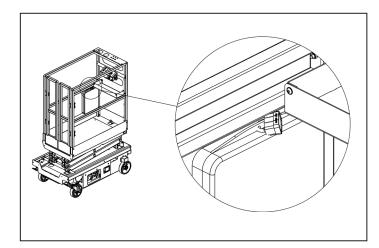


FIGURE 16: Padlock Example

SECTION 6 | DAILY MAINTENANCE



FAILURE TO PERFORM INSPECTIONS AND PREVENTATIVE MAINTENANCE AT RECOMMENDED INTERVALS MAY RESULT IN THE UNIT BEING OPERATED WITH A DEFECT THAT MAY RESULT IN INJURY OR DEATH OF THE OPERATOR. REGULAR INSPECTION AND CONSCIENTIOUS MAINTENANCE IS IMPORTANT TO EFFICIENT ECONOMICAL OPERATION OF THIS MACHINE. IT WILL HELP TO ASSURE THAT EQUIPMENT WILL PERFORM SATISFACTORILY WITH A MINIMUM OR SERVICE AND REPAIR. MAKE CHECKS AT THE STATED INTERVALS OR MORE FREQUENTLY IF REQUIRED BY LOCAL OPERATING CONDITIONS. A PRE-START INSPECTION CHECKLIST IS INCLUDED IN THIS MANUAL.

Additional maintenance for use by trained personnel is included in a separate Maintenance Manual. Refer to the Maintenance Manual for Pre-Delivery/Frequent and Monthly Checklists and replacement part information.

6.1 | CHARGING THE BATTERY

This unit is equipped with a deep cycle 12-volt battery. The care and maintenance of your battery has much to do with how well this unit functions. Battery wiring should be checked monthly.

NOTE: The surrounding temperature greatly affects the power reserve within a battery.

EXAMPLE: A battery that is 100% charged at 80° F (27°C) drops to 65% at 32°F (0°C). At 0°F (-18°C), this battery will drop to 40% efficiency.



LEAD-ACID BATTERIES GENERATE EXPLOSIVE GASES. KEEP SPARKS AND FLAME AWAY FROM BATTERIES. DO NOT SMOKE WHILE CHARGING.

Do not operate unit while charging. Shortened battery life will result.

To Charge:

- Park the machine on a level surface.
- Plug charger into AC outlet until charged.
- For best battery life, leave charger plugged in until machine will be used again. The charger will maintain the battery charge.
- The charger will not begin the charging cycle on severely discharged batteries.



DO NOT OPERATE UNITE WHILE CHARGING



NEVER ADD ACID TO THE BATTERY

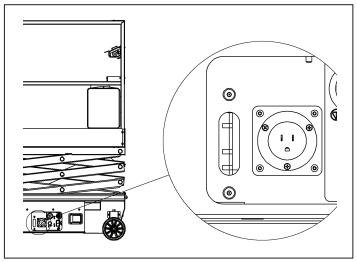
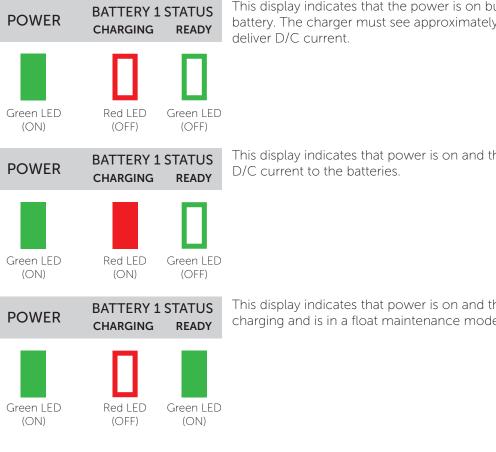


FIGURE 17: Battery Charger and Light Locations

Battery solution is at its proper strength when the battery is manufactured. Use distilled water and keep fluid up to proper level. When required, water should be added to battery after charging, unless water level is below the plates.

Reading the battery displays



This display indicates that the power is on but there is no connection to a battery. The charger must see approximately five (5) volts on a battery to

This display indicates that power is on and that both outputs are delivering

This display indicates that power is on and that the output is finished charging and is in a float maintenance model.

7.1 | PRE-START INSPECTION CHECKLIST

Pre-start Inspection (Push-Around Models)



THIS CHECKLIST MUST BE USED AT THE BEGINNING OF EACH SHIFT OR AFTER EVERY SIX TO EIGHT HOURS OF USE. FAILURE TO DO SO COULD AFFECT THE SAFETY OF THE OPERATOR.

Model:

__ Serial Number:_____

- Keep inspection records up-to-date.
- Record and report all discrepancies to your supervisor.
- A dirty machine cannot be properly inspected.

Y-Yes/Acceptable N-No/Unacceptable R-Repaired	Y	Ν	R	
VISUAL INSPECTIONS				
Check that there are no damaged, dented, or bent structural members				
There are no loose or missing parts.				
Check that warning and instructional labels are legible and secure. Ensure the load capacity is clearly marked.				
Check the platform rails and safety gate for damage.				
Platform and base controls are not missing, damaged, frayed, or disconnected.				
Hydraulic hoses are not torn or loose, and there are no leaks. Check that hoses and cables have no worn areas or chafing.				
Check the tires for damage.				
Check that all snap rings are secure in grooves on pivot pins.				
FUNCTIONAL TESTS				
Gate closes automatically and latches (alignment can be adjusted with screw-on toe board or railing).				
Platform Controls: Check all switches and push buttons for proper operation.				
Emergency Stop (Stops all movement)				
Up/Down Controls (Elevates, Lowers, Enable button must be pressed).				
Base Controls: Check all switches and push buttons for proper operation.				
Emergency Stop (Stops all movement)				
Key Switch (Selects Platform Control, Ground Control, or Off).				
Alarm (Not damaged, sounds for descent).				
Up/Down Rocker Switch (Elevates/Lowers).				
Wheels: Front and rear wheels rotate freely.				
Brakes engage and hold when platform is elevated.				
			<u> </u>	

Date:___

_____ Inspected by:____

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HY-BRID LIFTS -



Push-Around Mobile Elevating Work Platform Operation & Safety Manual PA-1030

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