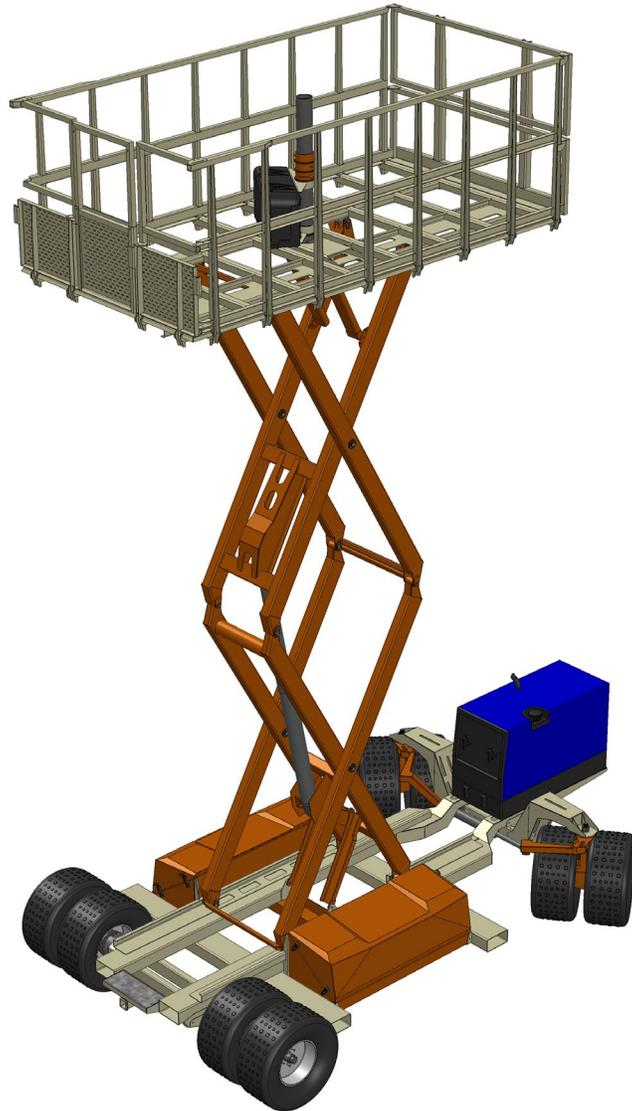


InnovaTech SkyLift

EQUIPMENT SAFETY, OPERATION, AND MAINTENANCE



SKL-100



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InnovaTech, LLC, strives to continually improve their user documentation. If you have any questions or concerns about the content of this service and maintenance guide, we want to hear from you. Please e-mail us at support@innovatechservice.com or contact us by mail at:

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The InnovaTech, LLC, Panelization System is under US PATENT PENDING protection.

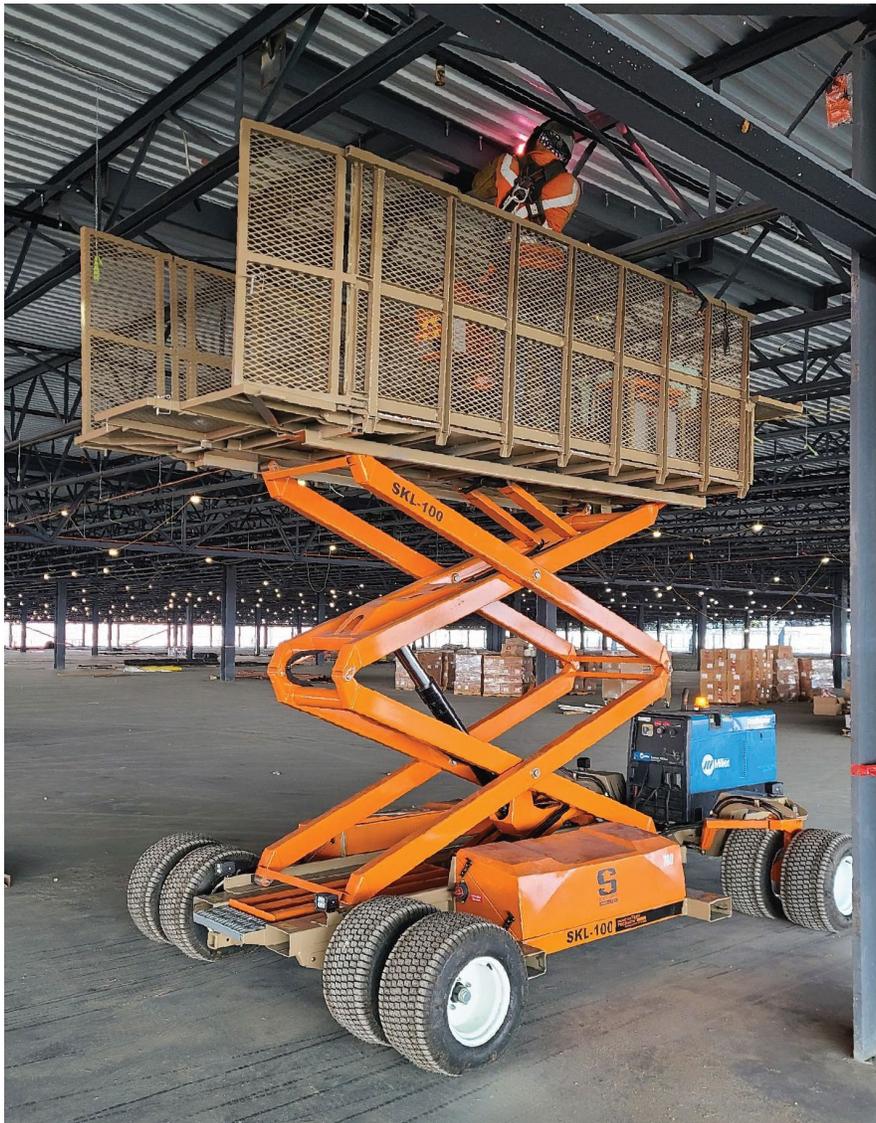
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InnovaTech Panelization System

Overview

InnovaTech Panelization System is an industrial equipment solution designed to work in conjunction with other common construction equipment to create a safe and efficient workplace for employees involved in the erection of steel structures.

A key piece of equipment involved in the InnovaTech Panelization System is the InnovaTech SkyLift. This mobile elevated work platform equipment is paired with other steel construction equipment and is strategically positioned to streamline the assembly and installation of frameworks and other miscellaneous metal upfits which could not otherwise be installed during panelized module construction at ground level. The SkyLift SKH-100 is designed to increase and improve worker safety and efficiency.

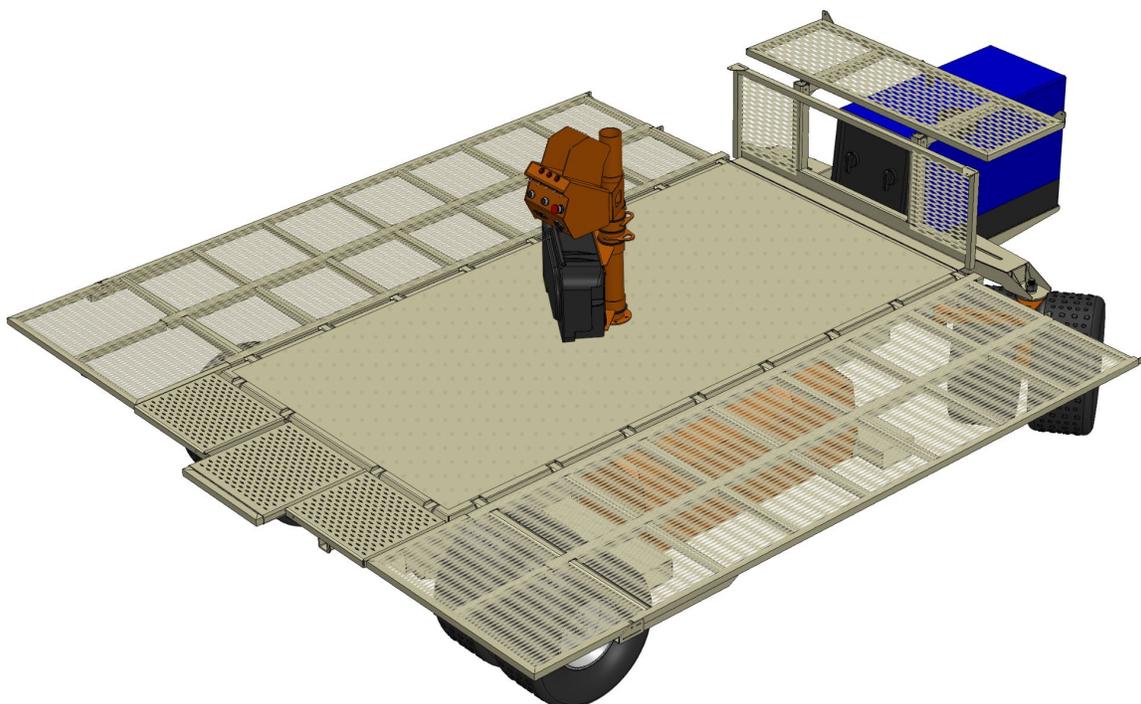


InnovaTech SkyLift

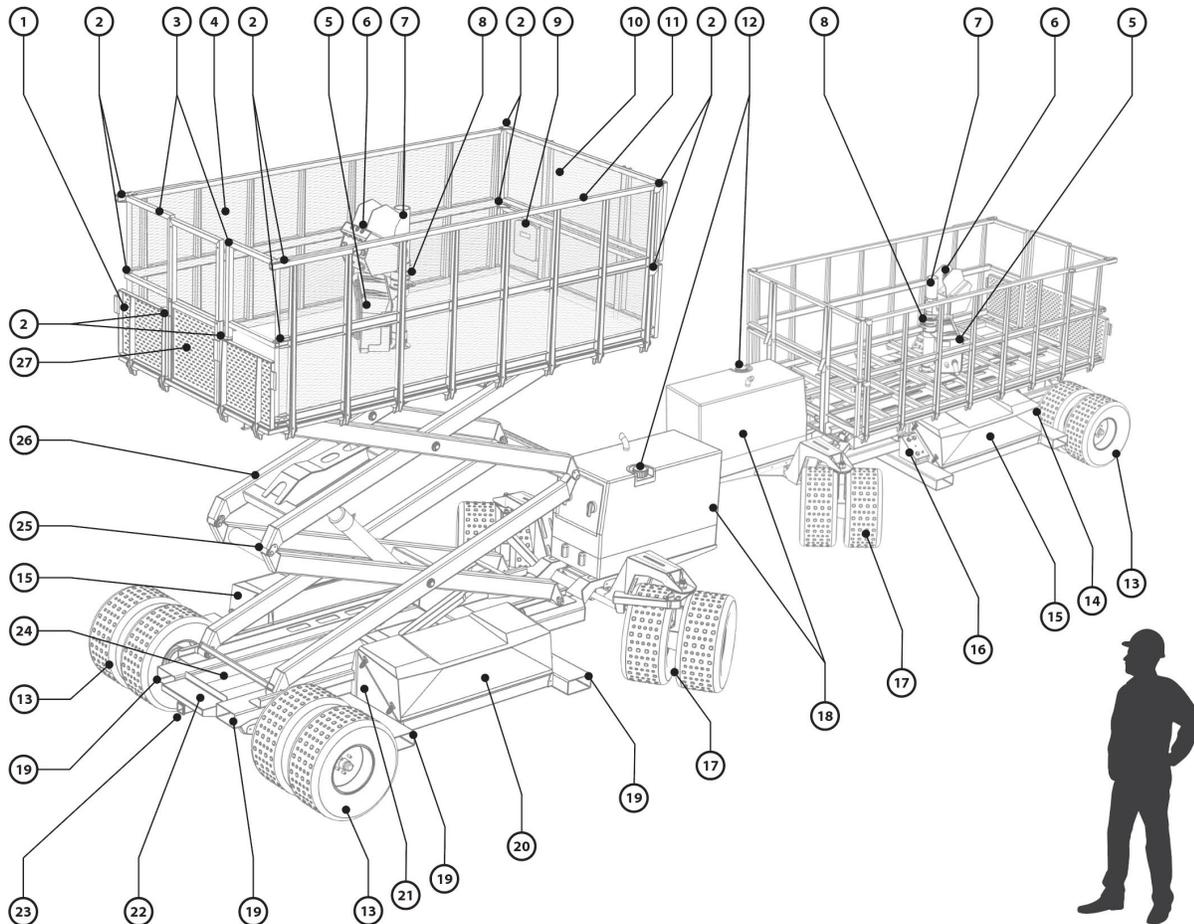
The SKL-100 is to be utilized on unfinished mezzanine levels where standard forklifts, boom lifts, and other extendable or elevated platform equipment access is not possible. Often, as the building construction progresses, additional steel frames and other miscellaneous steel items and upfits must be installed for routing necessary HVAC or other automation equipment before the concrete floors can be poured. The SkyLift is best suited for use in these scenarios within the Controlled Decking Zone where heavy loads and other traffic from must be limited.

Unique Features

- The SKL-100 feature a high flotation all terrain tire system which allows for fully distributed loads on surfaces that limit the amount of weight that can be supported, such as corrugated steel decking material.
- All components above the main frame are constructed of lightweight aluminum material which keeps the center of gravity as low as possible.
- The tie-off points, power, air, and welding reels are located at the center aerial platform pedestal, which rotate around the post allowing the workers 360° travel around the platform.
- Hydraulic controls are programmed to limit travel speed and height extension when surfaces are detected to be out of level, or if traction is lost.
- To help reduce need for frequent repositioning at heights, The SKL-100 platform rails can be tilted downward to covert to an extended platform floor space and allow safer access to workpieces and discouraging climbing upon and/or leaning over platform rails typical to traditional mobile elevated work platforms.
- LED lighting modules are strategically installed to illuminate work areas and direction of travel.



Nomenclature

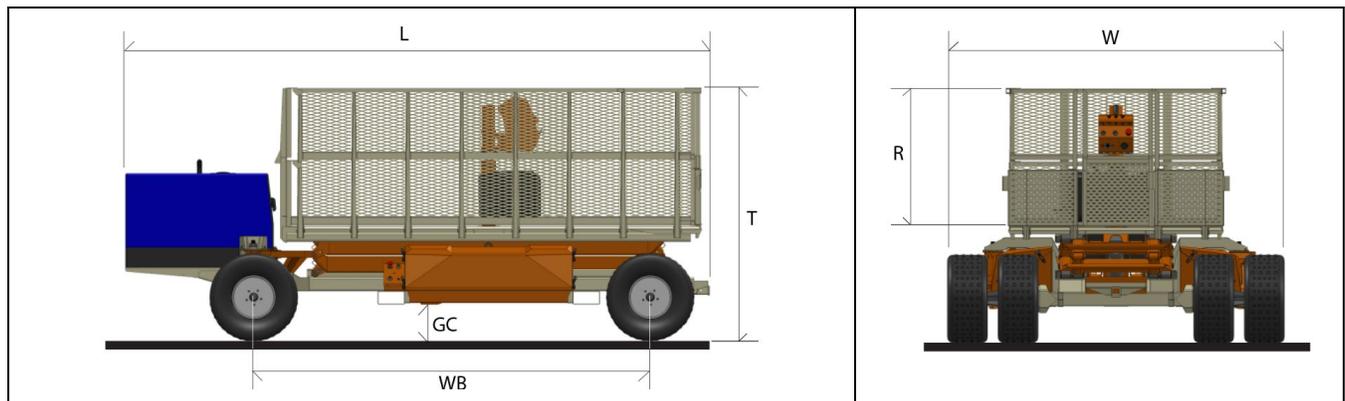


- | | | |
|---|-----------------------------------|--------------------------------------|
| 1. Entrance Platform | 9. Document Storage | 20. Electrical Automation Cover |
| 2. Dropdown Platform/Rail Retention Pins | 10. Bench Platform/Rail Extension | 21. L.O.T.O. Power Disconnect Switch |
| 3. Folding Entrance Rails | 11. Platform Guardrail | 22. Platform Step |
| 4. Side Dropdown Platform Extension | 12. Welder/Generator Fuel Cap | 23. Class III Receiver Hitch |
| 5. Welding Reel | 13. Flotation Axle Wheels | 24. Pneumatic Air Cylinders |
| 6. Controls (Incl. Power, Air) | 14. Hydraulic Oil Level Indicator | 25. Safety Arm |
| 7. Rotation Pedestal/Accessory Mounting Point | 15. Hydraulic System Cover | 26. Scissor Lift Assembly |
| 8. 360° Tie-Off Point (2) | 16. Ground Controls | 27. Platform Entry Gate |
| | 17. Drive/Steer Wheels | |
| | 18. Welder/Generator | |
| | 19. Forklift Pockets | |

Specifications

Dimensions, weights, and capacities are listed below.

DESCRIPTION	BASE (RAILS UP)	RAILS LOWERED (PLATFORM EXPANDED)
Net Weight	4600lbs	
System	Electro-Hydraulic, Diesel Generator Power	
Platform Capacity	1000lbs (inside rail area)	250lbs (outside rail area)
Overall Length (L)	173.6in	193.68in
Overall Width (W)	99.75in	145.75in
Overall Height (T)	75in	73in
Platform Raised	Top of Rail 250in (20ft 10in)	
Platform Dimensions	116in X 60in (9.5ft X 5ft) (47 SF)	136in X 145 (11.3ft X 12) (135 SF)
Rail Height (R)	41in	
Ground Clearance (GC)	10in	
Wheelbase (WB)	118in	



Safety

This equipment was specifically designed to enhance safety in the steel construction work environment. InnovaTech endeavors to maintain a positive reputation in the industry by preventing accidents and creating a safe, efficient, and productive work environment.

Pre-Task Safety Analysis

Although the SkyLift enhances safety and efficiency, it remains important for workers to carefully analyze the work to be performed. Identifying work methods, planning actions, communicating clearly, maintaining a positive attitude, teamwork, and compliance to worksite authority, all contribute to a safe worksite.

Use of the SkyLift should be included in a steel erection pre-task safety analysis at the beginning of each shift. Some topics to consider during pre-task safety analysis may include weather conditions, and site-specific plans. This Equipment Operation and Maintenance Manual provides information needed to safely operate the SkyLift. This manual should be considered an appurtenant part of the SkyLift, and kept in the protective enclosure located with the SkyLift.

Improper operation of the SkyLift is potentially dangerous if safety procedures are not followed. Safety information provided in this manual is a basic guide to improve safety and prevent accidents. InnovaTech LLC cannot foresee every circumstance that might involve a potential hazard. The operator is responsible for safe operation of the SkyLift. Operators must evaluate and verify that the techniques, operating procedures, work methods, and systems are safe and will work for each situation.

The safety of everyone around the SkyLift depends significantly on the operator’s knowledge and understanding of all correct and safe operating practices and procedures. Operators can help prevent accidents by recognizing potentially hazardous situations such as keeping fingers and feet away from moving parts or pinch points and ensuring that others working near the SkyLift are clear. Workers who operate the SkyLift or who work close to the SkyLift should remain alert to avoid someone being hit, crushed, or caught by the SkyLift or its parts which could result in death or serious injury.

<p>The diagram illustrates the SkyLift platform layout. The main platform area is a rectangle measuring 145 inches in length and 116 inches in width, with a weight capacity of 1000 lbs. Four extension areas are shown, each measuring 60 inches in width and having a weight capacity of 250 lbs. The total width of the platform including these extensions is 136 inches. A worker is shown operating the equipment on the main platform.</p>	<div style="text-align: center;">  </div> <p>OCCUPANTS OF THE PLATFORM SHOULD NOT EXCEED THE CAPACITY OF THE MAIN PLATFORM AREA AND THE PLATFORM EXTENSION AREAS.</p>
--	---

Support Equipment

In conjunction with the SkyLift equipment, workers should adhere to the safety requirements and the proper operation and maintenance of support equipment such as welders, fastening tools, lifting equipment, material handling equipment, and maintaining a realistic understanding of their own physical strength and endurance.

Operator Qualifications

All operators must be trained before operating the SkyLift. Training standards must be approved by InnovaTech. Operators must operate the SkyLift according to ALL appropriate safety regulations. Operator trainees must remain under constant observation and supervision of an experienced operator. Operators must be in good physical and mental condition, with appropriate reflexes, reaction time, vision, depth perception, and hearing.

Operators must read this operators manual completely and carefully to understand the safety instructions and the operation of controls. A brief description of controls, indicators, and instruments are provided as a convenience for the operator. These descriptions DO NOT provide complete operation instructions, and should not be substituted for proper operator training.

Operators must understand and comply with all DANGER, WARNING, and CAUTION notices. (Refer to the Safety Markers section for detailed information on safety marker definitions.)

Operators must have the required training, skills, and tools to perform installation, operation, maintenance, or repair procedures properly and safely. The operator is responsible to operate and maintain the SkyLift (and attachments) according to manufacturer's instructions.

If any doubt or question arises about the correct or safe methods for operating the SkyLift, operators **must not** proceed until obtaining expert assistance from a qualified person.

Personal Protection Equipment (PPE)

PPE should be utilized according to the type of work and environmental conditions a worker is exposed to. These items may include reflective vests, gloves, helmets, goggles, face shields, hearing protection, respiratory protection, and fall protection.

Fall Protection

It is recommended that Personal fall protection equipment be used in addition to the guardrails, and may be required by job site or employer rules. All PPE must comply with applicable governmental regulations and must be inspected and used according to the manufacturer's requirements. Operators must use 100% tie-off at all times while outside of a safety control line where fall protection is required. A personal fall arrest system includes a full body harness and a self-retracting lanyard of 10-ft or less (or 4-ft. shock absorbing lanyard) connected to a designated tie off point.

The SkyLift is designed for use while working/servicing joist or beam connections where the SKL-100 physically could not fall from an edge. There may be some rare instances where the SKL-100 may approach an unprotected leading edge. The SKL-100 DOES NOT feature optical sensors that will automatically stop the SKL-100 if it approaches too close to the edge. The operator should maintain a safe distance of at least 15 feet from an unprotected leading edge where perpendicular structural members are not installed.

Welder Generator

The SkyLift utilizes a welder generator for the source of power in addition to lowering the center of gravity. The welder generator should weigh no less than 620lbs and be able to provide at least 2400 W (120 V, 20 A) 60 Hz power. Refer to the SkyLift Nomenclature section in this manual for mounting position. This model SkyLift includes an/or equivalent to a MILLER TRAILBLAZER 325 Diesel CV/DC. Refer to the welder generators manufacturer documentation for safety, operation, and maintenance recommendations. Contact InnovaTech for acceptable substitutions.

Weld Wire Feeder

The SkyLift is designed to accommodate a weld wire feeder for efficient welding. Refer to the SkyLift Nomenclature section in this manual for mounting position. All model series SkyLift's include specifications for an/or equivalent to a LINCOLN LN-25 PRO. Refer to the weld wire feeder manufacturer documentation for safety, operation, and maintenance recommendations. Contact InnovaTech for acceptable substitutions.

Hazards

⚠ WARNING

Operators must read and understand all DANGER, WARNING, CAUTION, and operating instructions on the machine and in this manual. This equipment cannot be used for any purpose other than positioning personnel, their tools and equipment.

Pre-Operation Inspection Checklist

Perform a pre-operation inspection and functional tests at the beginning of each work shift. Perform the pre-operation inspection first. **DO NOT** perform the pre-operation inspection with the engine running or hot. Contact with moving or heated parts could cause death or serious injury.

- Perform the pre-operation inspection and functional tests in an open area and away from any other obstacles or equipment. Inspections and functional tests may require assistance. Keep the assistant visible and a safe distance from the SKL-100 to prevent death or serious injury.
- Become familiar with all safety and hazard labels, regulations, and procedures. Make sure all proper safety and hazard labels are attached to the SKL-100 and remain legible.
- A brief description of controls, indicators, and instruments is provided as a convenience for the operator. These descriptions **DO NOT** provide complete operation instructions.
- Read and understand the entire manual to prevent death, serious injury, or equipment damage.
- Keep fingers and feet away from moving parts or pinch points to prevent pinching or crushing. **DO NOT** allow anyone between the tires and the SKL-100 frame while operating the SKL-100. Doing so can result in death or serious injury.

Walk around the ENTIRE SKL-100 while visually performing the pre-operation inspection. Some items to check may be:

- Check that “Do Not Operate” tags (lock-out, tag-out) have not been placed on the SKL-100.
- Check that Operation and Safety Manual is in the protective case and legible.
- Check all hydraulic hoses and hose connections for wear or leaks.
- Check for loose or missing bolts and nuts.
- Check electrical connections.
- Check hydraulic reservoir sight gauge for proper fluid level. Add hydraulic fluid, if necessary.
- Check electrical wires and connectors.
- Check cylinders and hydraulic lines for leaks or any other damage.
- Check that all labels are present and legible. Replace any damaged or illegible labels.

Worksite Safety

WARNING

Use proper safety procedures and avoid hazardous situations while operating the SKL-100 to prevent death, serious injury, or property damage.

- Keep the work site clear of any hazards while operating the SKL-100.
- Check the work area for debris, drop-offs, loose soil conditions, and overhead power lines, and temporary bracing.
- Know about underground hazards.
- **DO NOT** allow bystanders in the work area.
- Follow established site-specific safety plans for erection paths on the work site.
- Follow work site signs and signals.
- Stop for poor visibility conditions, such as dust, smoke, fog, etc. Wait until visibility improves before continuing.
- Operate the SKL-100 in an enclosed area only if there is a ventilation system capable of routing hazardous fumes outside. Engine exhaust contains products of combustion that could cause death or serious injury.
- **DO NOT** operate the SKL-100 if you are using drugs, alcohol, or any medication that might impair your judgment or ability.
- You must be 18 years of age or older to operate the SKL-100.

WARNING

Check warning indicators and gauges frequently during operation. If a warning indicator is illuminated or a gauge shows abnormal readings, stop use of the SKL-100, follow proper shut down procedures. Follow proper lock-out/tag-out procedures before attempting repairs. Tag the SKL-100 with “Do Not Operate” tags, and have a

qualified mechanic service or repair the SKL-100 before placing it into service again. Ignoring warning indicators can result in death, serious injury, or property damage.

Modifications

WARNING

Modifications to the SKL-100 or attachments could affect capacity and/or stability which could result in death or serious injury. **DO NOT** make modifications to the SKL-100 or attachments without prior written approval from InnovaTech, LLC. Where such authorization is granted, capacity, operation, and maintenance instruction plates, tags, or labels shall be changed accordingly.

- Unauthorized modifications or alterations will void the warranty.
- **DO NOT** modify, disable, or bypass any safety devices.
- **DO NOT** burn or drill holes in attachments.

Operation

Ground Controls



The Ground Controls panel is located on the left side of the Hydraulic System Cover. **CAUTION!** Observe platform position when raising and lowering the platform at this location. Head injury could occur.

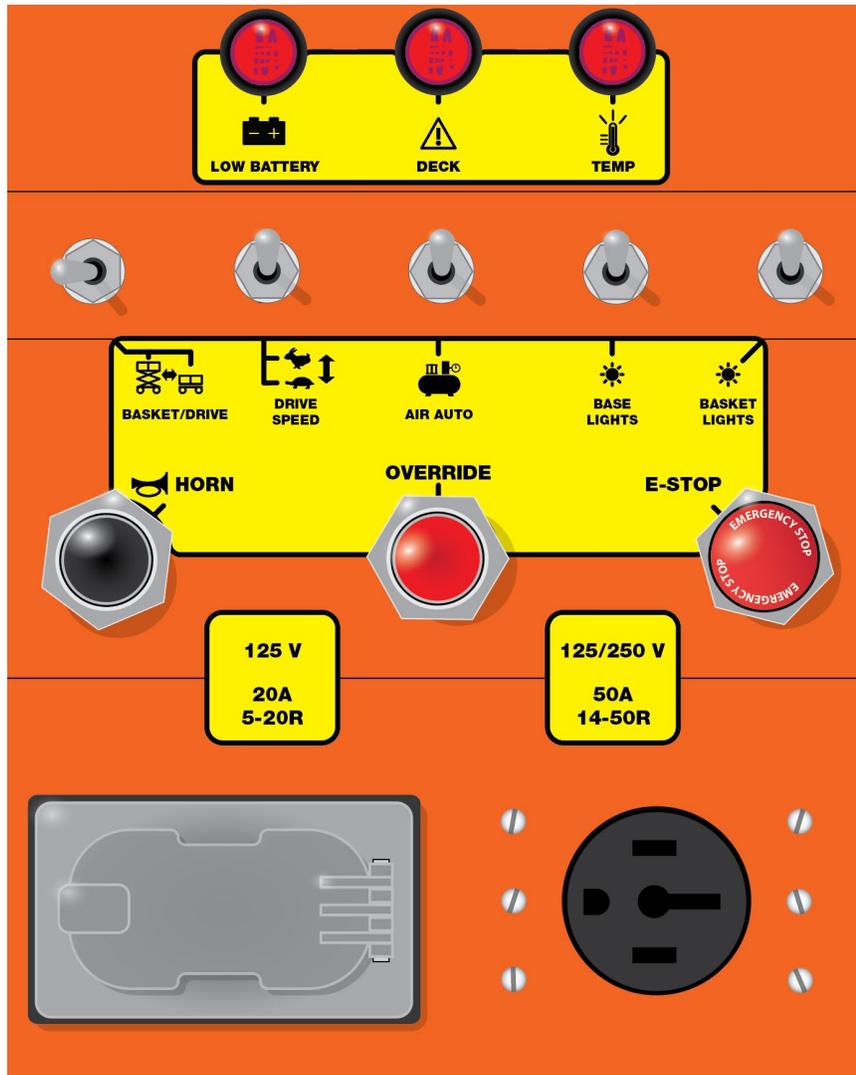
1. **Emergency Stop:** When pushed down, all control functions will be disabled. Pull out to restore the control functions.
2. **Voltage Meter:** Digital display to assist in monitoring the battery health.
3. **Manual Hydraulic Pressure Release Handle:** When removed, the handle relieves all residual hydraulic fluid pressure.

CAUTION! SCISSOR LIFT MECHANISM WILL RETRACT IF LEFT IN RAISED POSITION!
 ENGAGE SAFETY ARM BEFORE USE!
 Re-install the release handle to restore the ability to rebuild hydraulic pressure.

4. **ON/OFF Switch:** Switch to ON position to activate Basket Control. Rotate and HOLD switch counter-clockwise past the OFF position to activate the ground control UP/DN switch to perform raise/lower function.
5. **UP/DN Toggle Switch:** Press and hold in the desired direction while the ON/OFF switch is held in the counter-clockwise position to perform the raise/lower functions.

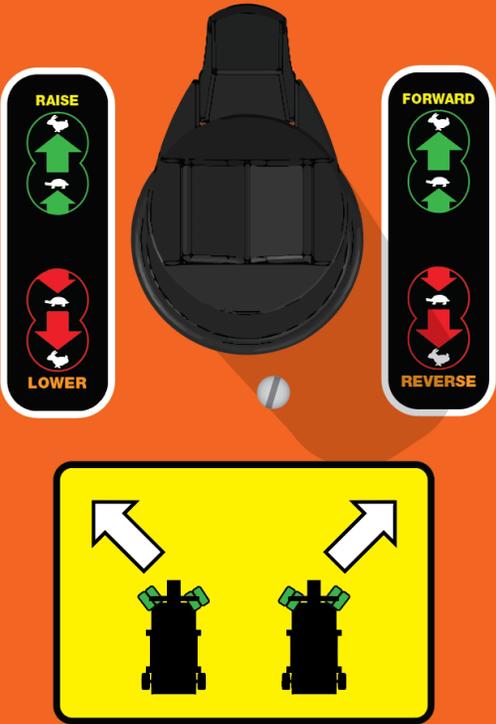
Platform Controls

The Platform Controls panel is located at the center of the aerial platform on the Rotation Pedestal.



1. **Low Battery:** When light is active, indicates a low battery or other supporting function at fault.
2. **Deck:** When light is active, it indicates that a sensor has failed or is at fault status.
3. **Temp:** When light is active, indicates that the hydraulic oil is over regular temperature and requires user attention.
4. **Basket/Drive:** Toggle between Drive mode and Raise/Lower mode.
5. **Drive Speed:** Toggle between Fast and Slow Drive Speeds.
6. **Air Auto:** Activates the on-board air-compressor and sets to power on/off automatically to maintain the desired system air pressure.
7. **Base Lights:** Powers on the lower level lighting for illuminating the direction of travel.
8. **Basket Lights:** Powers on the platform level lighting for illuminating the work area.
9. **Horn:** Activates an audible signal to help gain the attention of/or warn others nearby.
10. **Override:** Allows slow temporary movement of functions in case of a fault.
11. **Emergency Stop:** When pushed down, all control functions will be disabled. Pull out to restore the control functions.
12. **125 V:** Standard Voltage Receptacle to charge or power hand tools.
13. **125/250:** High Voltage receptacle to power heavy duty equipment.

Drive Controls



The drive controls are located above the platform control panel at the center of the platform on the rotation pedestal.

1. **Raise/Lower:** To raise or lower the platform, make sure the toggle switch located on the platform control panel set to the correct position, and push the joystick forward to raise, and backward to lower. Pushing the joystick fully forward/reverse will allow full speed movement.
2. **Forward/Reverse:** To drive in the forward direction or the reverse direction, make sure the toggle switch located on the platform control panel set to the correct position, and push the joystick forward to drive forward, and backward to reverse. Pushing the joystick fully forward/reverse will allow full speed movement.
3. **Steering:** While in drive mode, Utilize the toggle switch atop the joystick to steer in the desired direction.

Maintenance

In order to maintain the highest level of safety and operation efficiency, InnovaTech recommends an established service interval. Contact your service representative for recommendations.

Maintenance

Follow the manufacturer's instructions for proper maintenance to make sure the SKL-100 continues to meet manufacturer's specifications. Failure to properly maintain the SKL-100 can result in improper performance, which could cause death, serious injury, or property damage.

- Follow Lock-Out/Tag-Out procedures which include locking out power, relieving energy potential, and attaching "Do Not Operate" tag to the power disconnect switch and controls before beginning any service or maintenance.
- The "Do Not Operate" tags indicate the SKL-100 should not be operated until all service or maintenance is completed.
- **DO NOT** operate the SKL-100 attachment if it requires repair.
- Make sure basic maintenance is completed and service problems are corrected.
- Death or serious injury can result from operating the SKL-100 before all repairs have been made and all proper maintenance is completed.

Replacement Parts

Contact InnovaTech for information regarding replacement parts. If in the event repairs need to be made during operation, in many instances, parts may be sourced from areas local to the Panelization System's job location. Your InnovaTech service agent will assist in identifying appropriate replacement parts.

Service Life

InnovaTech Products and Services are constantly being improved for serviceability and durability. If any portion of the equipment is deemed unsafe, or in poor repair, appropriate procedures should be initiated for repair or replacement. InnovaTech recommends complete service procedures be performed prior to site deployment. If onsite repairs are necessary, appropriate Lock-Out/Tag-Out procedures must be initiated. No portion of damaged equipment should be operated for any length of time.

Supplemental Equipment Manuals

The manuals to each of the support equipment specified in this document can be found on the manufacturer's website. Manufacturer documentation may be available for download via these websites. This list may be incomplete. Contact an InnovaTech representative for information on compatible support equipment.

Replacement Manuals, Decals

Replacement manuals and decals for the SKL-100 can be obtained by contacting us by phone, mail, email.

Model/Serial

When contacting our service representatives, please have the XXX serial number available. The serial number can be determined by noting the digits represented by the ** following the model number XXX-00-00000000. (For example, XXX-01-18050049)

Contact Us

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