UpRight

Operator Manual

XRT Series

SERIAL NO. 2300 to Current

WARNING

All personnel shall carefully read, understand and follow all safety rules, operating instructions, and the Scaffold Industry Association's MANUAL OF RESPONSIBILITIES *of ANSI A92.6-1999* before operating or performing maintenance on any UpRight Aerial Work Platform.

Safety Rules

NEVER operate the machine within ten feet of power lines. THIS MACHINE IS NOT INSULATED

NEVER elevate the platform or drive the machine while elevated unless the machine is on firm level surface.

NEVER sit, stand or climb on guardrail or midrail.

Never operate the machine without first surveying the work area for surface hazards such as holes, drop-offs, bumps and debris.

Never operate the machine if all guardrails are not properly in place and secured with all fasteners properly torqued.

Secure chain or gate across entrance after mounting platform.

Never use ladders or scaffolding on the platform.

Never attach overhanging loads or increase platform size.

Look up, down and around for overhead obstructions and electrical conductors.

Distribute all loads evenly on the platform. See the back cover for maximum platform load.

Never use damaged equipment. (Contact UpRight for instructions. See toll-free phone number on back cover.)

Never change operating or safety systems.

Inspect the machine thoroughly for cracked welds, loose hardware, hydraulic leaks, damaged control cable, loose wire connections and wheel bolts.

Never climb down elevating assembly with the platform elevated.

Never perform service on machine while platform is elevated without blocking elevating assembly.

Never recharge battery near sparks or open flame; batteries that are being charged emit highly explosive hydrogen gas.

After Use secure the work platform against unauthorized use by turning key switch off and removing key.

Never replace any component or part with anything other than original UpRight replacement parts without the manufacturer's consent.

California Proposition 65 Warning

Gasoline and diesel engine exhaust and some of their constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

Safety Rules and Operating Instructions

Safety Rules and Operating Instructions

INTRODUCTION

This manual covers all models of the XRT Self Propelled Work Platforms. **This manual must be stored on the machine at all times.**

PRE-OPERATION SAFETY INSPECTION

Carefully read, understand and follow all safety rules, operating instructions, labels, and the Scaffold Industry Association's MANUAL OF RESPONSIBILITIES. Perform the following steps each day before use.

1. Open module covers and inspect for damage, oil leaks or missing parts.
2. Check the hydraulic oil level sight gauge on the hydraulic tank with the platform fully lowered. Add hydraulic oil if necessary.
3. Check that fluid level in the battery is correct (see "Battery Maintenance" on page 12).
4. Check the engine oil level and fuel level.
5. Check that all guardrails are in place with all fasteners properly tightened.
6. Check that the slide out deck extension is secured with the pin.
7. Tire Pressure (unless foam filled): 65 psi (4,5 bar).
8. Inspect the machine thoroughly for cracked welds, loose or missing hardware, hydraulic leaks, damaged control cable, loose wire connections and wheel bolts.
9. Gasoline / Propane Models: set Dual Fuel Selector to desired position. Set to the center position to purge the system when switching fuels. If the machine is to be operated on propane, open the supply valve on the tank.

NOTE: When using LP gas, use clean, water free liquid petroleum gas, preferably from a bulk storage tank. Follow the instructions located on the Power Module tray for filling the tank.

⚠ WARNING ⚠

If you smell propane, close the supply valve on the tank immediately until you have located and corrected the leak

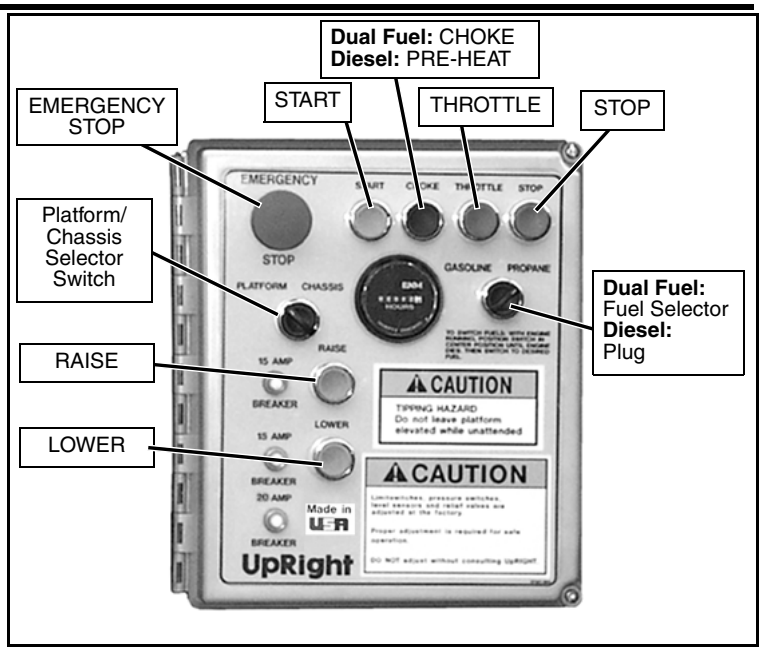
10. While the engine is cool check the engine coolant level.

⚠ CAUTION ⚠

DO NOT check coolant when engine or radiator is hot, hot coolant can cause severe burns.

11. Close and secure module covers.
12. Move the machine, if necessary, to an unobstructed area to allow for full elevation.
13. Pull Chassis Emergency Stop Switch to the ON position.
14. Pull Platform Emergency Stop Switch to the ON position.

Figure 1: Chassis Controls

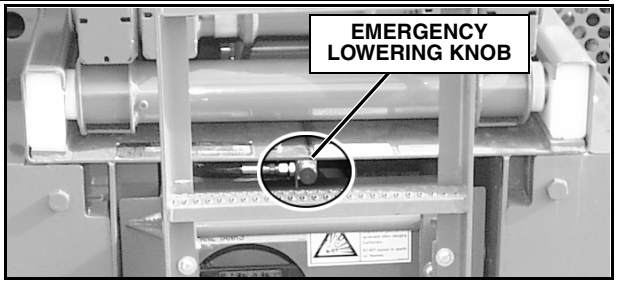


15. Turn Platform Controls Key Switch clockwise to ON.
16. CHASSIS CONTROLS, Turn the Platform/Chassis Switch to CHASSIS.

    NOTE: If the engine is cold; Dual Fuel Models - Push and hold the CHOKE Button while starting the engine. Diesel Models - Push and hold the PREHEAT Button for 6 seconds before starting engine to engage the glow plugs.

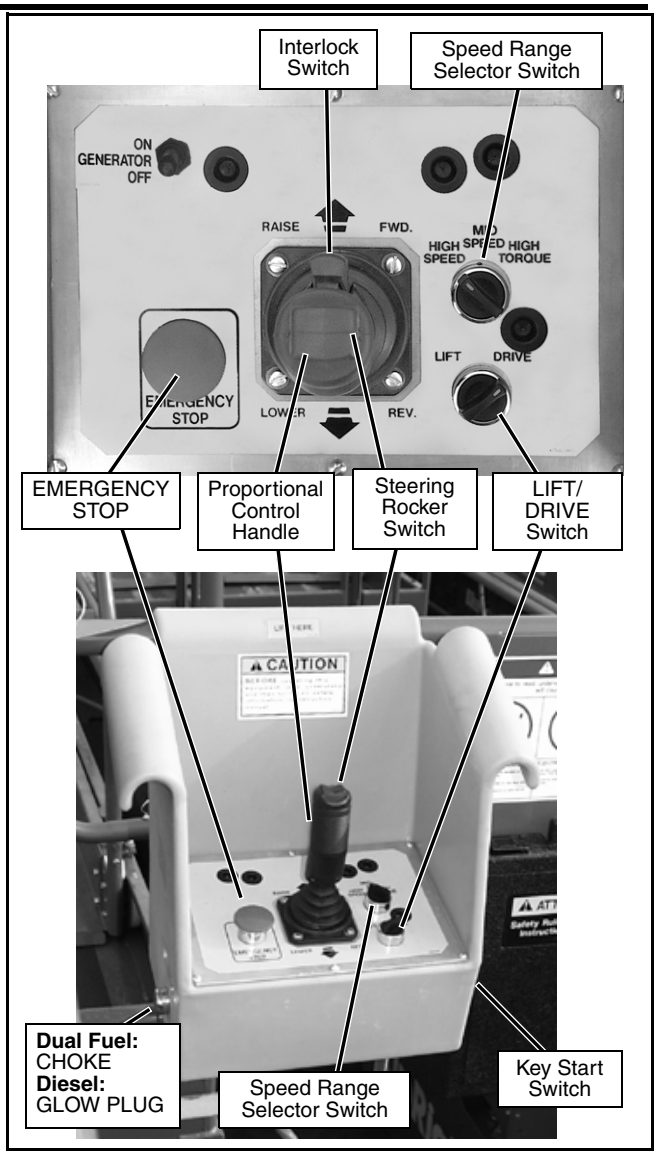
17. Push and hold the START Button to start the engine. Release the Button once the engine starts.
18. Push the THROTTLE Button in, and push the RAISE button to fully elevate the platform.
19. Visually inspect the elevating assembly, lift cylinder, cables and hoses for cracked welds, loose hardware, hydraulic leaks, loose wire connections and erratic operation. Check for missing or loose parts.
20. Partially lower the platform by pushing in on the Chassis Controls LOWER button, and check operation of the audible lowering alarm.

Figure 2: Emergency Lowering Knob



21. Pull out on the Emergency Lowering Knob to check for proper operation. Once the platform has lowered completely, release the knob.
22. Push the Chassis Emergency Stop Switch to check for proper operation. All the machine functions should be disabled. Pull out the Emergency Stop Switch to resume.
23. Turn the Platform/Chassis Switch to PLATFORM.
24. Check that the route is clear of obstacles (persons, obstructions, holes, drop-offs, bumps, and debris), is level, and capable of supporting the wheel loads.
25. Mount the platform and properly close the entrance.

Figure 3: Platform Controls



26. PLATFORM CONTROLS, Turn Platform Controls Key Switch clockwise to ON.

NOTE: If the engine is cold;
Dual Fuel Models - Push and hold the Choke Button while starting the engine.
Diesel Models - Push and hold the GLOW PLUG Button for 6 seconds before starting engine to engage the glow plugs.

27. Turn Platform Controls Key Switch fully clockwise to start engine, release the key once the engine starts.
28. Turn Lift/Drive Switch to DRIVE.

NOTE: The Speed Range Selector Switch has three positions; HIGH SPEED, MID SPEED, and HIGH TORQUE. Perform Step 29 for each speed.

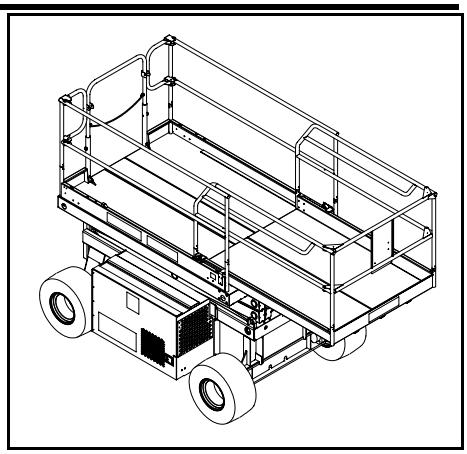
29. Engage the Interlock Switch and move the Control Handle FORWARD, then REVERSE, to check for speed control.
30. Push the Steering Switch RIGHT, then LEFT, to check for steering control.
31. Turn the Lift/Drive Switch to LIFT.
32. Engage the Interlock Switch, and push the Control Handle forward to check platform lift controls. Raise the platform to full elevation.
33. Pull back on the Control Handle. The platform should descend and the Audible Lowering Alarm should sound.
34. Lower the platform completely.
35. Push the Platform Emergency Stop Switch to check for proper operation. All the machine functions should be disabled. Pull out the Platform Emergency Stop Switch to resume.
36. Turn Platform Controls key switch to OFF.
37. Push Chassis Emergency Stop Switch to the OFF position.
38. Push Platform Emergency Stop Switch to the OFF position.

OPERATION

Before operating work platform, ensure that the pre-operation safety inspection has been completed, and that any deficiencies have been corrected. **Never operate a damaged or malfunctioning machine.** The operator must be thoroughly trained on this machine, and must read, fully understand, and follow this Operator Manual and Scaffold Industry Association's Manual of Responsibilities of ANSI A92.6-1999.

PLATFORM EXTENSION

Figure 4: Platform Extension



1. Mount the platform and properly close the entrance.
2. Depress the foot lever located at the rear of the platform extension. Push the platform extension forward until the pin engages the front stop.
3. To retract the platform extension, depress the foot lever and pull the platform extension toward the rear of the machine until the pin engages the rear stop.

TRAVEL WITH PLATFORM LOWERED

1. Check that the route is clear of obstacles (persons, obstructions, holes, drop-offs, bumps, and debris), is level, and capable of supporting the wheel loads.
2. Turn the Platform/Chassis Switch to PLATFORM.
3. Pull Chassis Emergency Stop Switch to the ON position.
4. Mount the platform and properly close the entrance.
5. Check clearances above, below and to the sides of platform.
6. Pull Platform Emergency Stop Switch to the ON position.
7. Turn the Platform Controls Key Switch fully clockwise to ON.

NOTE: If the engine is cold;
Dual Fuel Models - Push and hold the CHOKE Button while starting the engine.
Diesel Models - Push and hold the GLOW PLUG button for 6 seconds before starting engine to engage the glow plugs.

8. Turn Platform Controls Key Switch fully clockwise to start engine, releasing the key once the engine starts.
9. Turn the Lift/Drive switch to DRIVE.
10. Set the Speed Range Selector Switch to the MID SPEED position.
11. Engage the Interlock Switch and move the Control Handle to FORWARD or REVERSE to travel in the desired direction. The speed of the machine will vary depending on how far from center the Control Handle is moved.
12. Turn the Speed Range Selector Switch to HIGH SPEED for travel on level surfaces.
13. Turn the Speed Range Selector Switch to MID SPEED for climbing grades or traveling in confined areas.
14. Turn the Speed Range Selector Switch to HIGH TORQUE position for steep grades or muddy conditions where additional torque is required.

STEERING

1. Turn the Lift/Drive switch to DRIVE.
2. Engage the Interlock Switch, push the Steering Switch RIGHT or LEFT to turn the wheels in the desired direction. Observe the tires while operating the machine to ensure proper direction.

NOTE: Steering is not self-centering. Wheels must be returned to the straight ahead position by operating the Steering Switch.

ELEVATING THE PLATFORM

1. Select a firm, level surface.
2. Turn the Lift/Drive Switch to LIFT.
3. Engage the Interlock Switch and push the Control Handle forward.
4. If the machine is not level the tilt alarm will sound and the machine will not lift or drive. **If the tilt alarm sounds the platform must be lowered and the machine moved to a firm level surface before attempting to re-elevate the platform.**

TRAVEL WITH WORK PLATFORM ELEVATED

NOTE: The machine will travel at reduced speed when the platform is elevated.

1. Check that the route is clear of obstacles (persons, obstructions, holes, drop-offs, bumps, and debris), is level, and capable of supporting the wheel loads.
2. Check clearances above, below and to the sides of platform.
3. Turn the Lift/Drive Switch to DRIVE.
4. Engage the Interlock Switch and move the Control Handle to FORWARD or REVERSE to travel in the desired direction. The speed of the machine will vary depending on how far from center the Control Handle is moved.
5. If the machine is not level the tilt alarm will sound and the machine will not lift or drive. **If the tilt alarm sounds the platform must be lowered and the machine moved to a firm, level surface before attempting to re-elevate the platform.**

Lowering the Platform

1. Turn the Lift/Drive Switch to LIFT.
2. Engage the Interlock Switch and pull back on the Control Handle to lower the platform.

Emergency Lowering

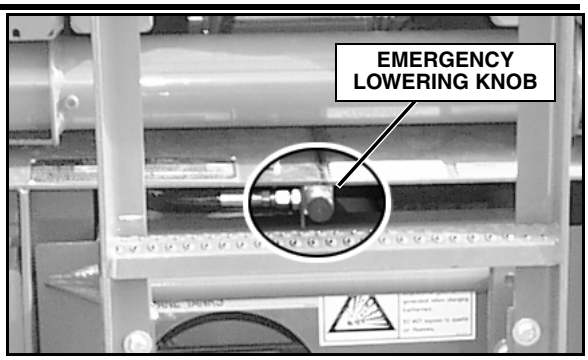
⚠ WARNING ⚠

If the platform should fail to lower, **NEVER** climb down the elevating assembly.

Figure 5: Emergency Lowering Valve Knob

The Emergency Lowering Valve is located at the rear of the machine at the base of the scissor assembly.

1. Open the emergency lowering valve by pulling and holding the knob.
2. To close, release the knob. The platform will not elevate if the Emergency Lowering Valve is open.



Switching Fuels (Dual Fuel Only)

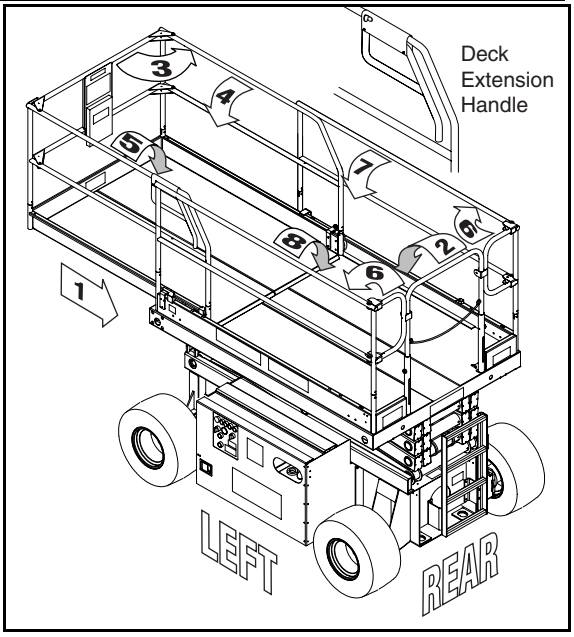
1. With engine running turn the fuel selector switch to the center position (Figure 1).
2. After the engine has quit running select the appropriate fuel supply.
3. Restart the engine.

FOLD DOWN GUARDRAILS

NOTE: When performing the following procedures retain all fasteners.

This procedure is only for passing through doorways. Guardrails must be returned to proper position before using the machine.

Figure 6: Fold Down Guardrails



FOLD DOWN PROCEDURE

1. Ensure that the slide out deck extension is fully retracted and deck pin is locked. Place the Platform Controls on the platform.
2. Pull the pins on the two end gate arms. Lower the rear gate to the floor. Replace the pins.
3. Pull the pins (2) on the left side of the front rail and swing the front rail back against the right handrail. Insert pins into right handrail.
4. Lift the right handrail up, then lower it to the extension deck floor.
5. Push the deck extension handle into locked position. Lift the left handrail up, then lower it on top of the right handrail.
6. Rotate the arms in against handrails.
7. Lift the right main handrail and lower to the floor.
8. Lift the left main handrail and lower it on top of right hand rail.

ERECTION PROCEDURE

1. Reverse the fold down procedure.
2. Hang the Platform Controls from front guardrail.
3. Before operating the work platform, check that all fasteners are in place and securely fastened.

⚠ WARNING ⚠

Before operating machine, guardrails must be securely fastened in their proper position.

After Use Each Day

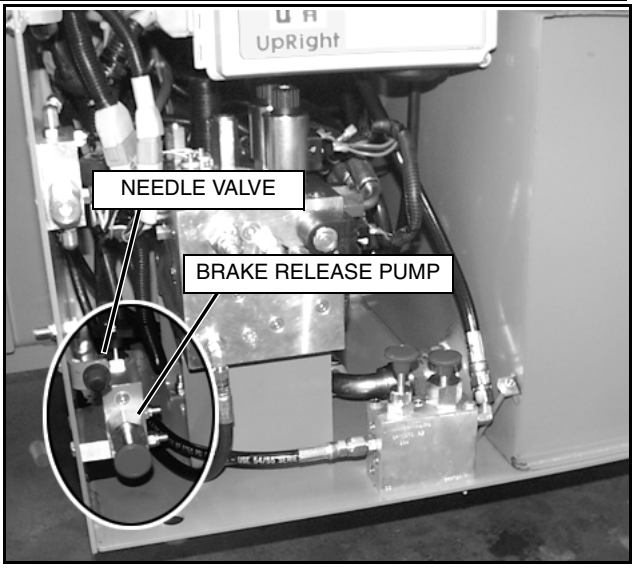
1. Ensure that the platform is fully lowered.
2. Park the machine on a firm, level surface, preferably under cover, secure against vandals, children and unauthorized operation.
3. Turn the key switch to **OFF** and remove the key to prevent unauthorized operation.

Parking Brake Release

Perform the following only when the machine will not operate under its own power and it is necessary to move the machine or when winching onto a trailer to transport.

Figure 7: Parking Brake Release Pump

1. Close the Needle Valve by turning the knob clockwise.
2. Pump the Brake Release Pump until the parking brakes release and the wheels can be turned.
3. The machine will now roll when pushed or pulled.
4. To re-engage the brakes open the Needle Valve and verify that the parking brakes have engaged before the machine is operated.



⚠ WARNING ⚠

Never operate work platform with the parking brakes released. Serious injury or damage could result.

TRANSPORTING WORK PLATFORM

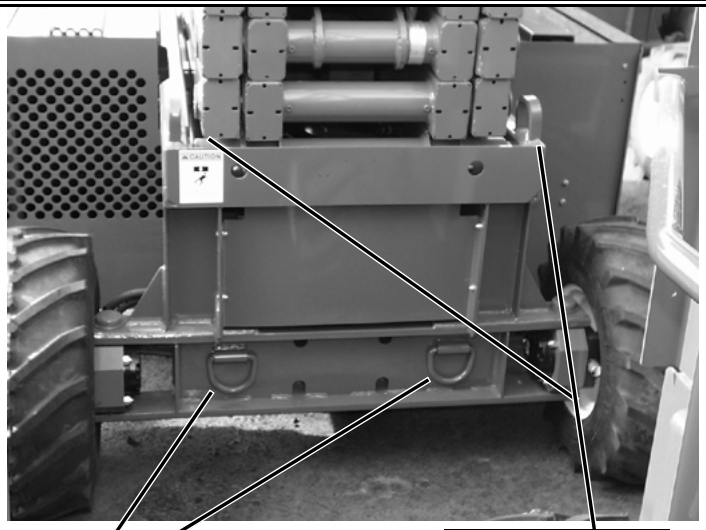
Figure 8: Transporting the Work Platform

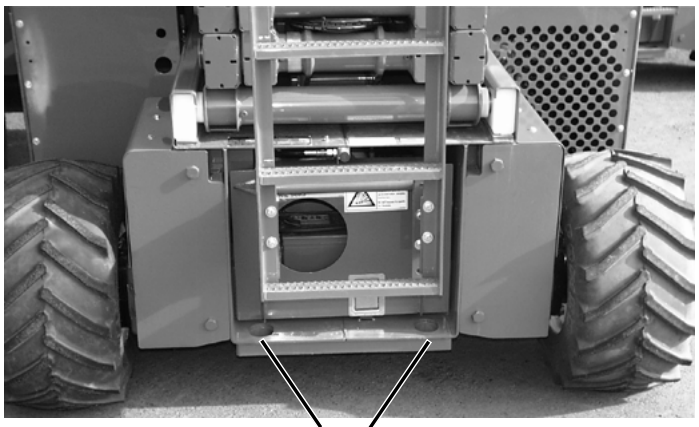
BY CRANE

1. Secure straps to Lifting Lugs only.

BY TRUCK

1. Maneuver the work platform into transport position and chock the wheels. The platform must be in the fully lowered position for transport.
2. Secure the work platform to the transport vehicle with chains or straps of adequate load capacity attached to the front and rear Tie Downs on both sides of the chassis.





⚠ CAUTION ⚠

Overtightening of chains or straps through tie down lugs may result in damage to work platform.

⚠ WARNING ⚠

Never perform service in the elevating assembly area while platform is elevated without first blocking the elevating assembly.

DO NOT stand in elevating assembly area while deploying or storing brace.

DO NOT block elevating assembly with a load on the platform.

Figure 9: Blocking the Elevating Assembly

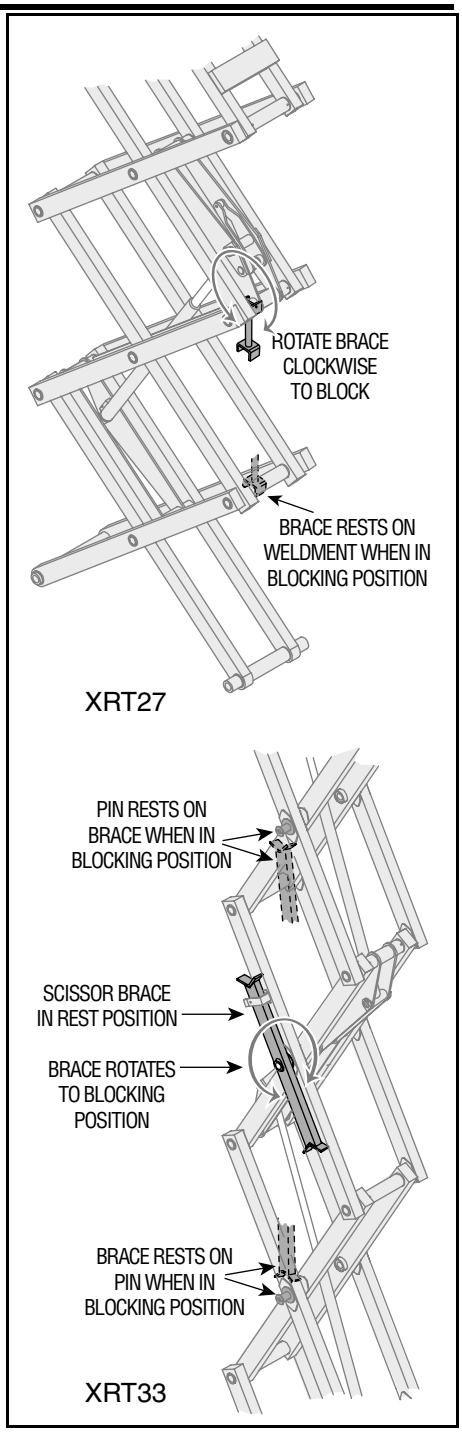
BLOCKING ELEVATING ASSEMBLY

BRACE INSTALLATION

1. Park the work platform on a firm level surface.
2. Pull Chassis Emergency Stop Switch to the ON position.
3. Pull Platform Emergency Stop Switch to the ON position.
4. Turn Platform Controls Key Switch to ON.
5. Turn Platform/Chassis switch to CHASSIS.
6. Push and hold the START button to start the engine. Release the button once the engine starts.
7. Push the THROTTLE button, and push the RAISE button to elevate platform until the Scissor Brace can be rotated to the vertical position.
8. XRT27-From rear of machine, lift the Scissor Brace from its stowed position. Rotate upward and outward then down until it is hanging vertical below its attachment point.
9. XRT33-From the left side of the machine, pull the locking pin securing the brace. Rotate the Scissor Brace counterclockwise until it is in the vertical position.
10. Lower the platform by pushing in on the Chassis Controls LOWER button and gradually lower the platform until the Scissor Brace is supporting the platform.

BRACE REMOVAL

1. Using the Chassis Controls, gradually elevate the platform until the scissors brace is clear.
2. XRT27- Rotate Scissor Brace outward and upward over its mounting point until it rests in the stowed position.
3. XRT33-Rotate scissors brace clockwise until the locking pin engages.
4. Lower the platform by pushing in on the Chassis Controls LOWER button to completely lower the platform.



BATTERY MAINTENANCE

⚠ WARNING ⚠

Hazard of explosive gas mixture. Keep sparks, flame, and smoking material away from battery.

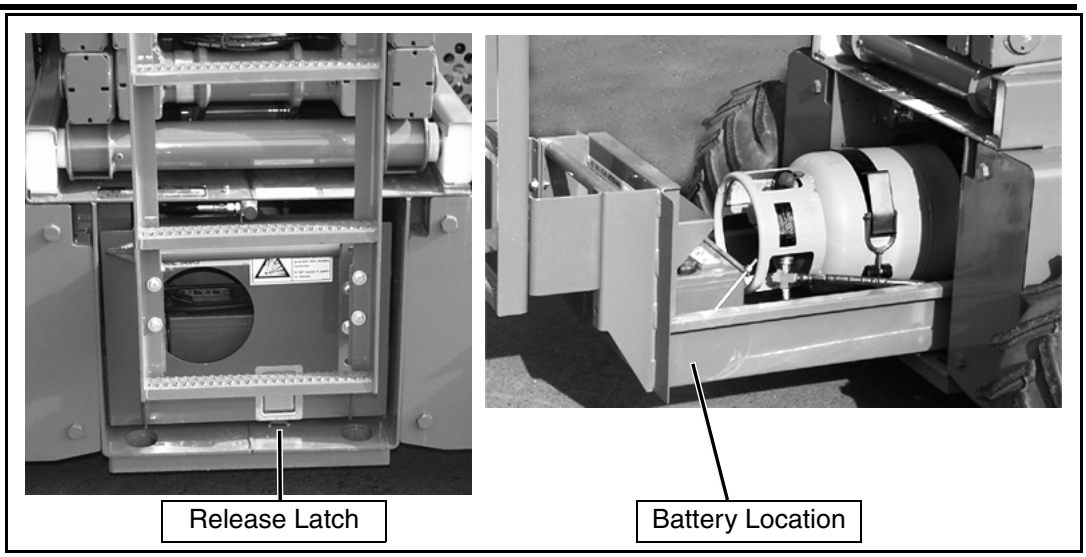
Always wear safety glasses when working near battery.

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash hands after handling.**

Battery fluid is highly corrosive. Thoroughly rinse away any spilled fluid with clean water.

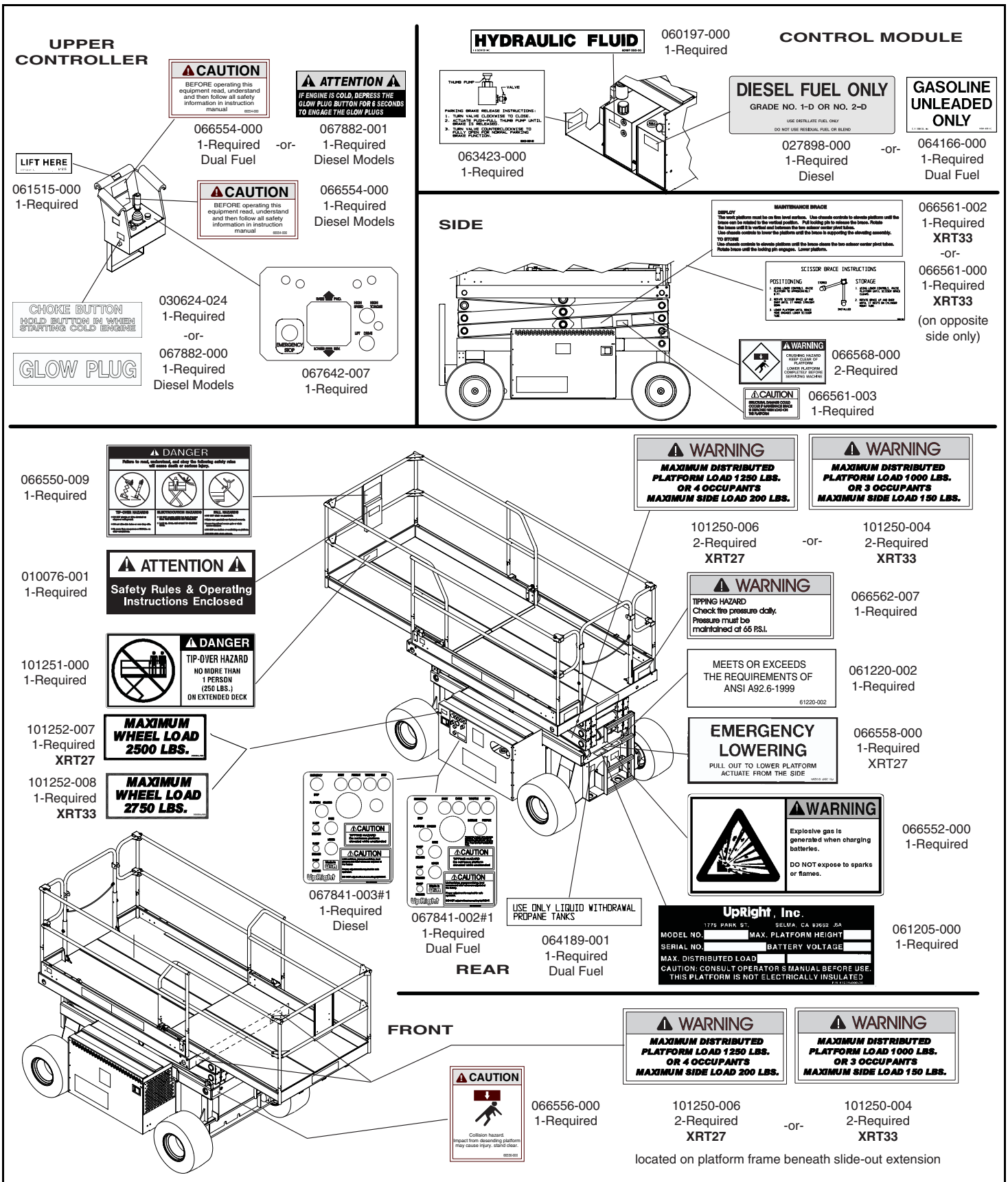
Always replace battery with an UpRight battery or manufacturer approved replacement.

Figure 10: Access to Battery



The battery is located in the slide out tray. The slide out tray is located at the rear of the machine.

- Reach through the ladder to pull the Release Latch, then pull the tray outwards.
- Check battery fluid level, if electrolyte level is lower than 3/8 in. (10 mm) above plates add distilled water only. DO NOT use tap water with high mineral content, as it will shorten battery life.
- The battery and cables should be inspected regularly for signs of cracks in the case, electrolyte leakage and corrosion of the terminals. Inspect cables for worn spots or breaks in the insulation and for broken cable terminals. Keep terminals and tops of batteries clean.
- Refer to the Service Manual to extend battery life and for complete service instructions.



NOTE: Labels can be ordered by using Part Number located by each label. For machines equipped with options consult the Service Manual.

Proper label installation is required. All of these labels shall be present and in good condition before operating the work platform. Be sure to read, understand and follow these labels *BEFORE* operating the work platform.

PREVENTATIVE MAINTENANCE

The Complete inspection consists of periodic visual and operational checks, along with periodic minor adjustments to assure proper performance. Daily inspection will prevent abnormal wear and prolong the life of all systems. The inspection and maintenance schedule is to be performed at regular intervals. Inspection and maintenance shall be performed by personnel who are trained and familiar with mechanical and electrical procedures.

⚠ WARNING ⚠

Before performing preventative maintenance, familiarize yourself with the operation of the machine.

Always block the elevating assembly whenever it is necessary to perform maintenance while the platform is elevated.

The preventative maintenance table has been designed for machine service and maintenance. Please photocopy the following page and use the table as a checklist when inspecting the machine.

PREVENTATIVE MAINTENANCE CHECKLIST

PREVENTATIVE MAINTENANCE KEY

Interval

Daily=each shift or every day
50h/30d=every 50 hours or 30 days
250h/6m=every 250 hours or 6 months
1000h/2y=every 1000 hours or 2 years
Y=Yes/Acceptable
N=No/Not Acceptable
R=Repaired/Acceptable

PREVENTATIVE MAINTENANCE REPORT

Date:_____

Owner: _____

Model No:_____

Serial No: _____

Serviced By:_____

Service Interval: _____

COMPONENT	INSPECTION OR SERVICES	INTERVAL	Y	N	R
Battery	Check electrolyte level	6m			
	Check specific gravity	6m			
	Clean exterior	6m			
	Check battery cable condition	Daily			
	Clean terminals	6m			
Engine Oil and Filter	Check level and condition	Daily			
	Check for leaks	Daily			
	Change oil filter	250h			
Engine Fuel System	Check fuel level	Daily			
	Check for leaks	Daily			
	Replace fuel filter	6m			
	Check air cleaner	Daily			
	Replace air cleaner element (Diesel)	Yearly			
	Check Intake Air Line (Diesel)	6m			
Engine Coolant	Check coolant level (with engine cold)	Daily			
	Replace coolant	2y			
	Check Hoses and Clamps	6m			
Hydraulic Oil	Check oil level	Daily			
	Change filter	6m			
	Drain and replace oil	2y			
Hydraulic System	Check for leaks	Daily			
	Check hose connections	30d			
	Check hoses for exterior wear	30d			
Emergency Hydraulic System	Operate the emergency lowering valve and check for serviceability	Daily			
Platform Controls	Check switch operation	Daily			
Control Cable	Check the exterior of the cable for pinching, binding or wear	Daily			
Platform Deck and Rails	Check fasteners for proper torque	6m			
	Check welds for cracks	Daily			
	Check condition of deck	Daily			

COMPONENT	INSPECTION OR SERVICES	INTERVAL	Y	N	R
Tires	Check for damage	Daily			
	Check lug nuts (torque to 90 ft. lbs.)	6m			
Hydraulic Pump	Wipe clean	30d			
	Check for leaks at mating surfaces	30d			
	Check for hose fitting leaks	Daily			
	Check mounting bolts for proper torque	6m			
Drive Motors	Check for operation and leaks	Daily			
Steering System	Check hardware & fittings for proper torque	6m			
	Grease pivot pins	30d			
	Oil king pins	30d			
	Check steering cylinder for leaks	30d			
Elevating Assembly	Inspect for structural cracks	Daily			
	Check pivot points for wear	6m			
	Check mounting pin pivot bolts for proper torque	6m			
	Check elevating arms for bending	6m			
Chassis	Check hoses for pinch or rubbing points	Daily			
	Check component mounting for proper torque	6m			
	Check welds for cracks	Daily			
Tilt Sensor	Check for operation	6m			
Lift Cylinder	Check the cylinder rod for wear	30d			
	Check mounting pin pivot bolts for proper torque	6m			
	Check seals for leaks	30d			
	Inspect pivot points for wear	6m			
	Check fittings for proper torque	6m			
Entire Unit	Check for and repair collision damage	Daily			
	Check fasteners for proper torque	6m			
	Check for corrosion-remove and repaint	6m			
	Lubricate	30d			
Labels	Check for peeling, missing, or unreadable labels & replace	Daily			

SPECIFICATIONS

ITEM	XRT27	XRT33
Platform Size (Outside)		
Standard	58 in. x 90.5 in. [1,47 m x 2,34 m]	58 in. x 90.5 in. [1,47 m x 2,34 m]
Slide Out Deck Extended	58 in. x 131 in. [1,47 m x 2,62 m]	58 in. x 131 in. [1,47 m x 2,62 m]
Max. Platform Capacity		
Standard	1,250 lbs. [567 kg]	1,000 lbs. [454 kg]
on Extension	250 lbs. [113 kg]	250 lbs. [113 kg]
Max. No. of occupants		
Standard	4 people	3 people
on Extension	1 person	1 person
Height		
Working Height	33 ft. [10,1 m]	39 ft. [12 m]
Max. Platform Height	27 ft. [8,2 m]	33 ft. [10,1 m]
Max. Drive Height	27 ft. [8,2 m]	33 ft. [10,1 m]
Dimensions		
Weight, Standard	7,000 lbs. [3175 kg]	8,167 lbs. [3704 kg]
Overall Width	69in. [1,75 m]	69 in. [1,75 m]
Overall Height (Rails Up)	98.5 [2,5 m]	105 in. [2,7 m]
Overall Height (Rails Folded)	69.5 in. [1,8 m]	76 in. [1,9 m]
Overall Length, Standard	106 in. [2,72 m]	106 in. [2,72 m]
Drivable Height	27 ft. [8,2 m]	33 ft. [11,1 m]
Drive Speed		
Platform Lowered	0 to 6.4 mph [0 to 4,0 km/h]	0 to 6.4 mph [0 to 4,0 km/h]
Platform Raised	0 to 0.45 mph [0 to 0,73 km/h]	0 to 0.45 mph [0 to 0,73 km/h]
System Voltage	12 Volt DC	12 Volt DC
Fuel Tank Capacity	16.25 US Gallons [74 l]	16.25 US Gallons [74 l]
Hydraulic Tank Capacity	16.25 US Gallons [74 l]	16.25 US Gallons [74 l]
Maximum Hydraulic System Pressure	3200 psi [220,7 bar]	3200 psi [220,7 bar]
Hydraulic Fluid		
Normal use: Above 32° F [0° C]	ISO #46	ISO #46
Low Temp. use: Below 32° F [0° C]	ISO #32	ISO #32
Below 0° F [-17° C]	ISO #15	ISO #15
Lift System	One Single Stage Lift Cylinder	Two Single Stage Lift Cylinders
Lift Speed	Raise, 35 sec./Lower, 31 sec.	Raise, 30 sec./Lower, 31 sec.
Power Source	Diesel - Kubota D905E	Diesel - Kubota D905E
	Dual Fuel - Kubota WG750 Gasoline/Propane	Dual Fuel - Kubota WG750 Gasoline/Propane
Drive Control - Proportional	Four Hyd. Wheel Motors	Four Hyd. Wheel Motors
Air Filled Tires (except foam filled tires)	26 X 12-10 ply, 65 psi [4,5 bar]	26 X 12-10 ply, 65 psi [4,5 bar]
Parking Brakes	Spring Applied, Hydraulic Release, Multiple Disc	Spring Applied, Hydraulic Release, Multiple Disc
Turning Radius (inside)	68 in. [1,7 m]	68 in. [1,7 m]
Maximum Gradeability	40% [21,9°]	35% [19,2°]
Ground Clearance	7.6 in [194 mm]	7.6 in [194 mm]
Wheel Base	78 3/8 in. [2 m]	78 3/8 in. [2 m]
Guardrails	44 in. [1,1 m] high, Fold Down	44 in. [1,1 m] high, Fold Down
Toeboard	6 in. [152 mm] High	6 in. [152 mm] High

Specifications are subject to change without notice

Meets or exceeds all applicable requirements of OSHA and ANSI A92.6-1999

Safety Rules and Operating Instructions

UpRight

1775 Park Street
Selma, California 93662
TEL: (800) 926-LIFT or (559) 891-5200
FAX: (559) 891-9012
Parts FAX: (559) 896-9244

Local Distributor:

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