UpRight

Operator Manual

X-Series

SERIAL NO. 1017 to Current

Safety Rules and Operating Instructions

Safety Rules and Operating Instructions

WARNING

All personnel shall carefully read, understand and follow all safety rules, operating instructions and the Scaffold Industry Association's MANUAL OF RESPONSIBILITIES before performing maintenance on or operating 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 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 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 batteries 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 manufacturers consent.

Introduction

This manual covers all models of the X-Series Work Platforms. This manual must be stored on the machine at all times.

Pre-Operation and Safety Inspection

Read, understand and follow all safety rules and operating instructions and then perform the following steps each day before use.

1. Open modules and inspect for damage, oil leaks or missing parts.
2. Check the level of the hydraulic oil with the platform fully lowered. Open the Left Module and remove the reservoir cap, oil should be visible in the filler screen. Add ISO #46 hydraulic oil if necessary.
3. Check that fluid level in the batteries is correct (See Battery Maintenance, Page 6).
4. Verify batteries are charged.
5. Check that A.C. extension cord has been disconnected from charger.
6. Check that all guardrails are in place, the Slide out Deck Extension is secured with the pin and all fasteners are properly tightened.
7. Carefully inspect the entire work platform for damage such as cracked welds or structural members, loose or missing parts, oil leaks, damaged cables or hoses, loose connections and tire damage.
8. Move machine, if necessary, to unobstructed area to allow for full elevation.
9. Turn Chassis and Platform Emergency Stop Switches ON (Figure 1 & 2) by pulling the button out.
10. Turn the Chassis Key Switch (Figure 1) to **CHASSIS**.
11. Push Chassis Lift Switch (Figure 1) to **UP** position and fully elevate platform.
12. Visually inspect the elevating assembly, lift cylinder, cables and hoses for damage or erratic operation. Check for missing or loose parts.

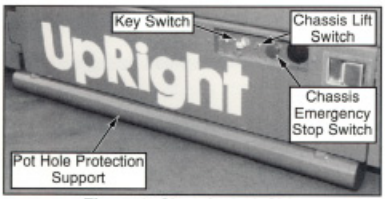


Figure 1: Chassis, Left Side

13. Verify that the Pot Hole Protection Supports have rotated into position under each module.
14. Partially lower the platform by pushing Chassis Lift Switch to DOWN, and check operation of the audible lowering alarm.
15. Open the Chassis Emergency Lowering Valve (Figure 3) to check for proper operation by pulling and holding the handle out. Once the platform is fully lowered, close the valve by releasing the handle.
16. Turn the Chassis Key Switch to **DECK**.
17. Close and latch the module doors.
18. Check that route is clear of persons, obstructions, holes and drop-offs, is level and capable of supporting the wheel loads.
19. Unhook Controller from guardrail. Firmly grasp Controller while performing the following checks from the ground.

> **⚠ WARNING ⚠**
>
> STAND CLEAR of the work platform while performing the following checks.
>
> Protect control console cable from possible damage while performing checks.

20. Pull Emergency Stop Button out to the ON position.
21. Position Drive/Lift Switch to **DRIVE**.
22. Grasp the Control Lever so the Interlock Lever is depressed (releasing the Interlock Lever cuts power to Controller), slowly position the Control Lever to **FORWARD** then **REVERSE** to check for speed and directional control. The farther you push or pull the Control Lever from center the faster the machine will travel.
23. Push Steering Switch RIGHT then LEFT to check for steering control.
24. Push the Emergency Stop Switch Button.
25. Rehook Controller on front guardrail.

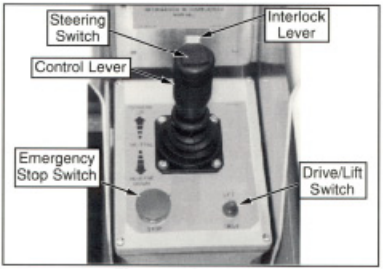


Figure 2: Controller

Operation

Before operating work platform ensure that pre-operation and safety inspection has been completed and any deficiencies have been corrected.

Travel With Platform Lowered

1. Check that route is clear of people, obstructions, holes and drop-offs, is level and is capable of supporting wheel loads.
2. Verify Chassis Key Switch is turned to **DECK** and Chassis Emergency Stop Switch is ON, pull button out.
3. After mounting platform lower top rail across entrance and latch chain across entrance. Check that guardrails are properly assembled and in position with the Slide Out Deck Extension secured with the pin. Attach Controller to guardrail.
4. Check clearances above, below and to the sides of platform.
5. Pull Controller Emergency Stop Button out to ON position. When button is pushed down Emergency Stop Switch will automatically go to OFF position.
6. Position Drive/Lift Switch to **DRIVE**.
7. Grasp the Control Lever so the Interlock Lever is depressed (releasing the Interlock Lever cuts power to Controller), slowly push or pull the Control Lever to **FORWARD** or **REVERSE** position to travel in the desired direction. The farther you push or pull the Control Lever from center the faster the machine will travel.

Steering

1. Position Drive/Lift Switch to **DRIVE**.
2. While holding the Control Lever so that the Interlock Lever is depressed, push the Steering Switch to RIGHT or LEFT to turn wheels in the desired direction. Observe the tires while maneuvering the work platform to ensure proper direction.

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

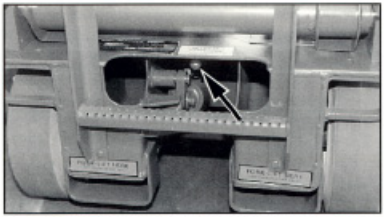


Figure 3: Emergency Lowering Valve Handle

Elevating Platform

1. Position Drive/Lift Switch to **LIFT**.
2. While holding the Control Lever so that the Interlock Lever is depressed, push Control Lever forward to **UP**, the farther you push the Control Lever the faster the Platform will elevate.
3. If the machine is not level or the Pot Hole Protection Supports do not fully deploy an Alarm will sound and the machine will not lift or drive. **If an Alarm sounds the platform must be lowered and the machine moved to a level location before attempting to re-elevate the Platform or the Pot Hole Protection Supports must be repaired if they are not properly deploying.**

Travel With Platform Elevated

NOTE: Work platform will travel at reduced speed when platform is elevated.

1. Check that route is clear of persons, obstructions, holes and drop-offs, is level and capable of supporting the wheel loads.
2. Check clearances above, below and to the sides of platform.
3. Position Drive/Lift Switch to **DRIVE** position.
4. Grasp the Control Lever so the Interlock Lever is depressed (releasing the Interlock Lever cuts power to Controller), push Control Lever to **FORWARD** or **REVERSE** for desired direction of travel.
5. If the machine is not level or the Pot Hole Protection Supports do not fully deploy an Alarm will sound and the machine will not lift or drive. **If an Alarm sounds the platform must be lowered and the machine moved to a level location before attempting to re-elevate the Platform or the Pot Hole Protection Supports must be repaired if they are not properly deploying.**

Lowering Platform

1. Position Drive/Lift Switch to **LIFT**.
2. Grasp the Control Lever so the Interlock Lever is depressed, pull back on the Control Lever.

Emergency Lowering

⚠ WARNING ⚠

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

Ask a person on the ground to open the Emergency Lowering Valve (Figure 3) to lower the platform. This valve is opened with the handle located at the rear of the machine.

1. Open the Emergency Lowering Valve by pulling on the handle.
2. To close, release the handle.

The platform will not elevate if the Emergency Lowering Valve is open.

After Use Each Day

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

Parking Brake Release (Figure 4)

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

The Brake Adjustment/Release Bolt is located at the rear of the machine between the rear wheels.

1. To release the brakes loosen the locknut and bolt until the brakes disengage from the tires.
2. The machine will now roll when pushed or pulled.
3. To re-engage the brakes tighten the bolt until the brakes have fully engaged the tires and secure with the locknut. Be sure to verify that the brake shoes have fully engaged the rear tires before the machine is operated.

⚠ WARNING ⚠

Never operate work platform with the Parking Brakes released. Serious injury or damage could result.

Never tow faster than 1 ft./sec. (.3m/sec.).

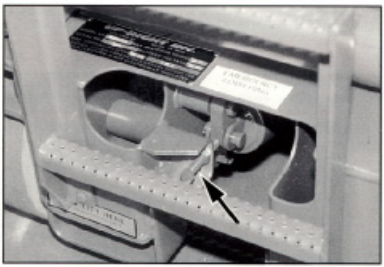


Figure 4: Parking Brake Release

Transporting Work Platform

By Forklift

NOTE: Forklifting is for transporting only.

⚠ CAUTION ⚠

See specifications for weight of work platform and be certain that forklift is of adequate capacity to lift platform.

Forklift from rear of Chassis using frame sockets or from the side by lifting under the Chassis Modules (Figure 5).

By Crane

1. Secure straps to Chassis Lifting Lugs only (Figure 5).

By Truck

1. Maneuver the work platform into transport position and chock wheels.
2. Secure the work platform to the transport vehicle with chains or straps of adequate load capacity attached to the chassis tie down lugs (Figure 5).

⚠ CAUTION ⚠

Tie down lugs are not to be used to lift work platform.

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

Be careful not to damage the Emergency Lowering Valve Handle when using the right front Tie Down.

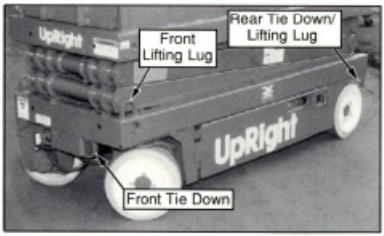


Figure 5: Transporting Work Platform

Maintenance

⚠ DANGER ⚠

Never perform service on the work platform in the Elevating Assembly area while platform is elevated without first blocking the Elevating Assembly.

DO NOT stand in Elevating Assembly area while installing or removing brace.

Blocking Elevating Assembly (Figure 6)

Installation

1. Park the work platform on firm level ground.
2. Verify Platform Emergency Stop Switch is ON.
3. Turn Chassis Key Switch to **CHASSIS**.
4. Position Chassis Lift Switch to **UP** and elevate platform approximately nine (9) feet (2.7 m).
5. Rotate Scissors Brace towards the front and allow it to hang verticle over the lower scissor pivot tube.
6. Push Chassis Lift Switch to **DOWN** position and gradually lower platform until brace rests on lower scissor arm pivot tube.

Removal

1. Push Chassis Lift Switch to **UP** position and gradually raise platform until the lower end of the Scissors Brace will clear the lower scissor arm pivot tube.
2. Rotate Scissors Brace towards the rear so that it rests on the cylinder mount, stowed position.
3. Push Chassis Lift Switch to **DOWN** position and completely lower platform.
4. Turn Chassis Key Switch to **DECK**.

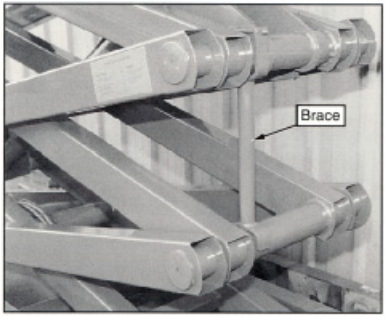


Figure 6: Blocking Elevating Assembly

Routine Service

Use the following table as a guide for routine maintenance, refer to the Service Manual for complete service instructions.

SERVICE OPERATION	INTERVAL			
	Daily	Monthly or 50 Hrs.	6 Months or 250 Hrs.	2 Years or 1000 Hrs.
Clean entire work platform	X			
Check battery fluid level	X			
Charge batteries	X			
Check tires for damage	X			
Check lug nuts/bolts	X			
Check Hydraulic Fluid Level	X			
Check for peeling, faded or missing labels & replace	X			
Check deck and guardrail fasteners for proper torque	X			
Inspect elevating assembly for bends or cracking	X			
Check for & repair collision damage	X			
Check emergency lowering valve operation	X			
Check electric motor brushes		X		
Check pivot pin bolts for proper torque		X		
Change hydraulic filter			X	
Check all fasteners for proper torque			X	
Change hydraulic fluid				X

Battery Maintenance

⚠ WARNING ⚠

Hazard of explosive gas mixture. Keep sparks, flame and smoking materials away from batteries.

Always wear safety glasses when working with batteries.

Battery fluid is highly corrosive. Rinse away any spilled fluid thoroughly with clean water.

Always replace batteries with UpRight batteries or manufacturer approved replacements weighing 62 lbs. each.

Check battery fluid level daily (Figure 7), especially if work platform is being used in a warm, dry climate.

If electrolyte level is lower than 3/8 in. above plates add distilled water only. DO NOT use tap water with high mineral content it will shorten battery life.

Keep terminals and tops of batteries clean.

Refer to the Service Manual to extend battery life and for complete service instructions.

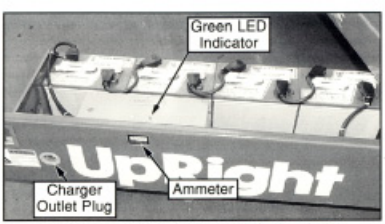


Figure 7: Chassis Module, Right Side

Battery Charging

Charge batteries at end of each work shift or sooner if batteries have been discharged.

⚠ WARNING ⚠

Charge batteries in a well ventilated area.

Do not charge batteries when the work platform is in an area containing sparks or flames.

Permanent damage to batteries will result if batteries are not immediately recharged after discharging.

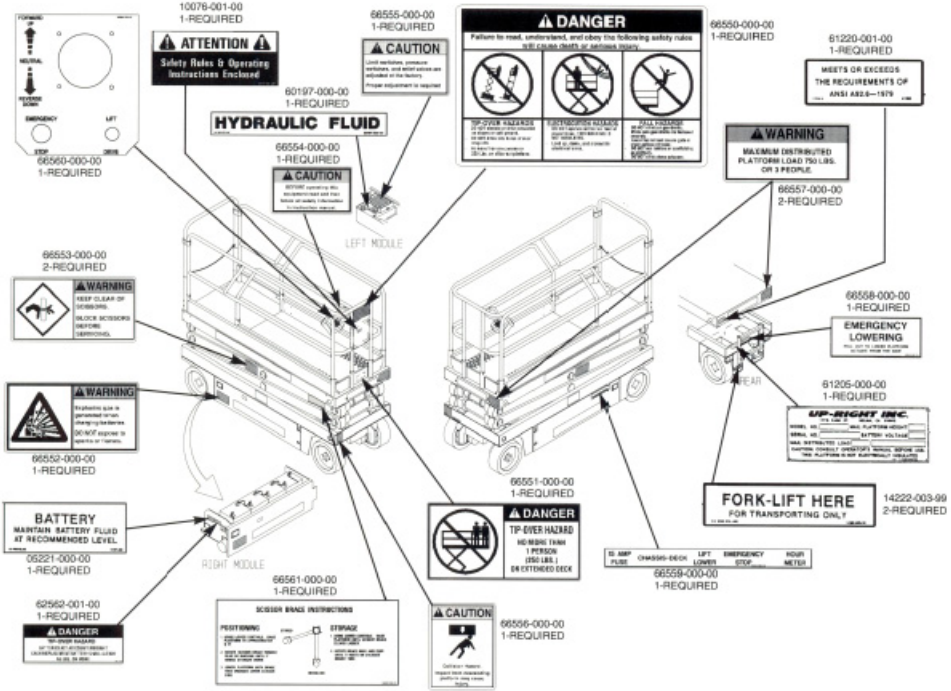
Never leave charger operating unattended for more than two days.

Never disconnect cables from batteries when charger is operating.

Keep charger dry.

1. Check battery fluid level (Figure 7). If electrolyte level is lower than 3/8 in. (10 mm) above plates add distilled water only.
2. Connect extension cord (12 gauge (1.5 mm^2) conductor minimum and 50 ft. (15 m) in length maximum) to the charger outlet plug located in the right chassis door. Connect other end of extension cord to properly grounded outlet of proper voltage and frequency.
3. Charger turns on automatically after a short delay, the ammeter will indicate DC charging current.
4. Charger turns off automatically when batteries are fully charged, the green LED indicator will come on.

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



X-SERIES LABEL INSTALLATION: THESE LABELS SHALL BE PRESENT AND IN GOOD CONDITION BEFORE OPERATING THE WORK PLATFORM. BE SURE TO READ, UNDERSTAND AND FOLLOW THESE LABELS WHEN OPERATING THE WORK PLATFORM.

Safety Rules and Operating Instructions

Specifications*

ITEM	X-20	X-20W	X-26
Platform Size w/ Extension	28 in. x 87 in. [711 mm x 2.21 m] Inside Toeboards	44 in. X 87 in. [1.12 m x 2.21 m] Inside Toeboards	44 in. X 87 in. [1.12 m x 2.21 m] Inside Toeboards
Max. Platform Capacity			
Standard w/ Extension	750 lbs. [340 kg]	1000 lbs. [453 kg]	1000 lbs. [453 kg]
on Extension	250 lbs. [110 kg]	250 lbs. [110 kg]	250 lbs. [110 kg]
Max. No. of occupants			
Standard	3 people	4 people	4 people
on Extension	1 person	1 person	1 person
Height			
Working Height	26 ft. [7.9 m]	26 ft. [7.9 m]	32 ft. [9.75 m]
Max. Platform Height	20 ft. [6.1 m]	20 ft. [6.1 m]	26 ft. [7.92 m]
Min. Platform Height	38 in. [.97 m]	39 in. [.99 m]	43 in. [1.09 m]
Dimensions			
Weight	3,651 lbs. [1656 kg]	4,096 lbs. [1858 kg]	4,570 lbs. [2072 kg]
Overall Width	32 ½ in. [.83 m]	48 in. [1.22 m]	48 in. [1.22 m]
Overall Height	78 in. [1.98 m]	79 in. [2.0 m]	83 in. [2.11 m]
Overall Length	92 in. [2.34 m]	92 in. [2.34 m]	92 in. [2.34 m]
Driveable Height	20 ft. [6.1 m]	20 ft. [6.1 m]	26 ft. [7.93 m]
Surface Speed			
Platform Lowered	0 to 2.3 mph [0 to 3.70 km/h]	0 to 2.3 mph [0 to 3.70 km/h]	0 to 2.3 mph [0 to 3.70 km/h]
Platform Raised	0 to .7 mph [0 to 1.13 km/h]	0 to .7 mph [0 to 1.13 km/h]	0 to .7 mph [0 to 1.13 km/h]
Energy Source	24 Volt Battery Pack (4-220 Amp Hour, 6 Volt Batteries, min. wt. 62 lbs. each [28.12 kg]), 4 HP DC Electric Motor	24 Volt Battery Pack (4-220 Amp Hour, 6 Volt Batteries, min. wt. 62 lbs. each [28.12 kg]), 4 HP DC Electric Motor	24 Volt Battery Pack (4-220 Amp Hour, 6 Volt Batteries, min. wt. 62 lbs. each [28.12 kg]), 4 HP DC Electric Motor
System Voltage	24 Volt DC	24 Volt DC	24 Volt DC
Battery Charger	25 AMP, 60 Hz 110 VAC	25 AMP, 60 Hz 110 VAC	25 AMP, 60 Hz 110 VAC
Battery Duty Cycle	25% for 8 Hours	25% for 8 Hours	25% for 8 Hours
Hydraulic Tank Capacity	4 Gallons [15.2 l]	4 Gallons [15.2 l]	4 Gallons [15.2 l]
Maximum Hydraulic System Pressure	2400 psi [169 Kg/cm²]	2600 psi [183 Kg/cm²]	2600 psi [183 Kg/cm²]
Lift System	One Single Stage Lift Cylinder	One Single Stage Lift Cylinder	One Single Stage Lift Cylinder
Drive Control	Two Speed	Two Speed	Two Speed
Control System	Joystick Controller with Interlock Lever, Toggle Selector Switch, Red Mushroom Emergency Stop	Joystick Controller with Interlock Lever, Toggle Selector Switch, Red Mushroom Emergency Stop	Joystick Controller with Interlock Lever, Toggle Selector Switch, Red Mushroom Emergency Stop
Horizontal Drive	Dual Front Wheel Hydraulic Motors	Dual Front Wheel Hydraulic Motors	Dual Front Wheel Hydraulic Motors
Tires	15 in. [381 mm] Diameter Solid Rubber, non-marking	15 in. [381 mm] Diameter Solid Rubber, non-marking	15 in. [381 mm] Diameter Solid Rubber, non-marking
Parking Brake	Two, Spring Applied, Hydraulic Release Brake Shoes with Manual Brake Release	Two, Spring Applied, Hydraulic Release Brake Shoes with Manual Brake Release	Two, Spring Applied, Hydraulic Release Brake Shoes with Manual Brake Release
Turning Radius	6 in. [152 mm] Inside	6 in. [152 mm] Inside	6 in. [152 mm] Inside
Maximum Gradeability	23% [13 degrees]	23% [13 degrees]	22% [12 degrees]
Wheel Base	74 ¾ in. [1.9 m]	74 ¾ in. [1.9 m]	74 ¾ in. [1.9 m]
Guardrails	40 in. [1.02 m]	40 in. [1.02 m]	40 in. [1.02 m]
Toeboard	6 in. [152 mm] High	6 in. [152 mm] High	6 in. [152 mm] High

* Specifications subject to change without notice.

Meets or exceeds all applicable requirements of OSHA and ANSI A92.6-1990

Refer to Service Manual for complete parts and service information.

FOR MORE INFORMATION

UpRight

USA

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1775 Park St., Selma, CA 93662

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Local Distributor:

605772-000
2/95D

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