



SERENITY HEALTH CARE PRODUCTS INC.

Improving Lifestyles Through Innovation

VPL-SH1 Vertical Platform Lift **Installation Manual**

- ☐ SH1-28"
- ☐ SH1-52"
- ☐ SH1-72"
- ☐ SH1-105"

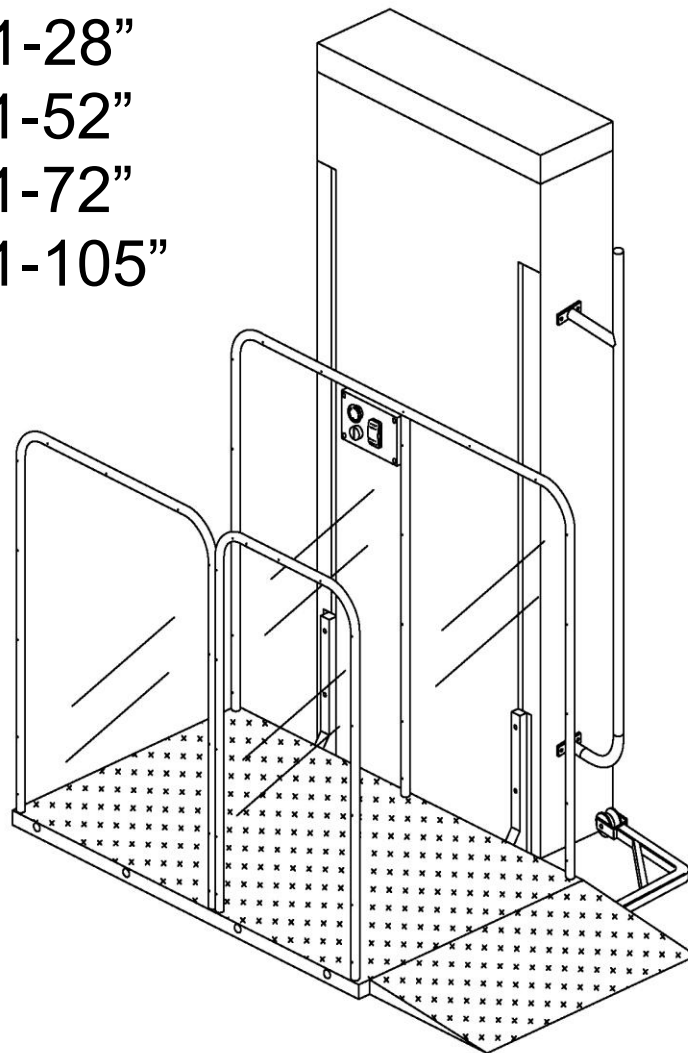


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Site Preparation and Electrical Guidelines

Outlet and Electrical

A dedicated 15A service must be used supplying a constant 115VAC @ 60HZ. If the unit is to be plugged in, it must be done using a GFI receptacle with a length not to exceed 5 feet in length. For direct wiring from an electrical panel, use a dedicated circuit with a 15A GFCI breaker with a minimum 12AWG wire size. All field electrical wiring and connections to the electrical panel, gates, call-send controls, interlocks and lift controller panel, must be done by a qualified installer.

Concrete Base

The vertical lift base must be anchored to a 6 inch thick, 3500PSI, level, reinforced concrete pad with a recommended size to measure 54" x 54" x 6". The pad is to be constructed by installer or other qualified person. It is recommended that the Vertical Platform Lift be secured to the pad using six(6) lag bolts for optimum stability.

Safety Guidelines

Each lift shall meet the applicable regulations and adhere to the appropriate sections of the following codes and standards:

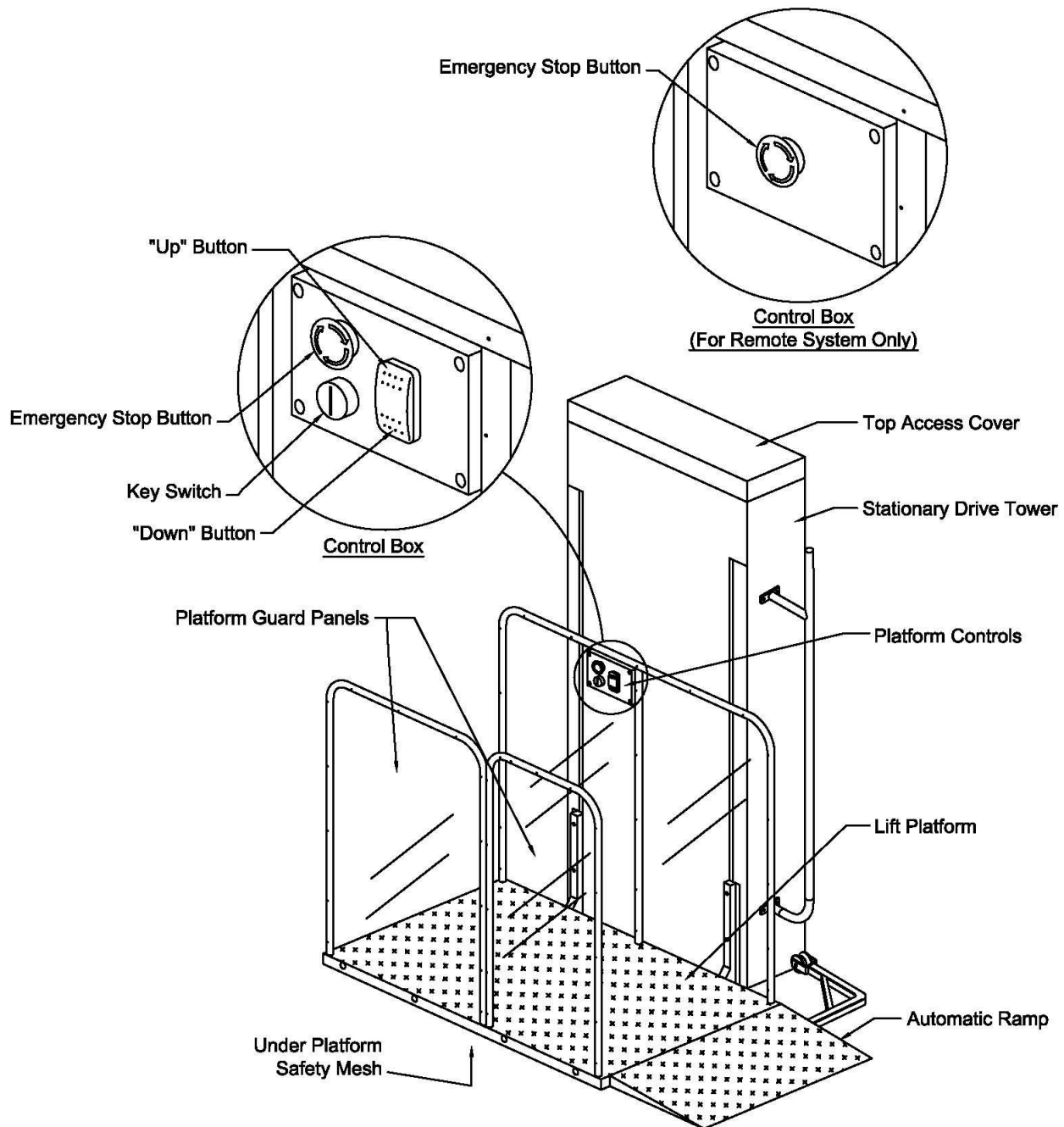
- ASME A18.1 "Safety Standard for Platform Lifts and Stairway Chairlifts"
- CSA B355-00 "Lifts for Persons with Physical Disabilities"
- ADAAG "Americans with Disabilities Act Accessibility Guidelines" (where applicable)
- CSA 22.2 No. 0, 0.4 as Guides and SPE-1000 "mpn on-site CSA electrical inspection"
- CSA B44.1 "Elevator and Escalator Electrical Equipment"

Specifications

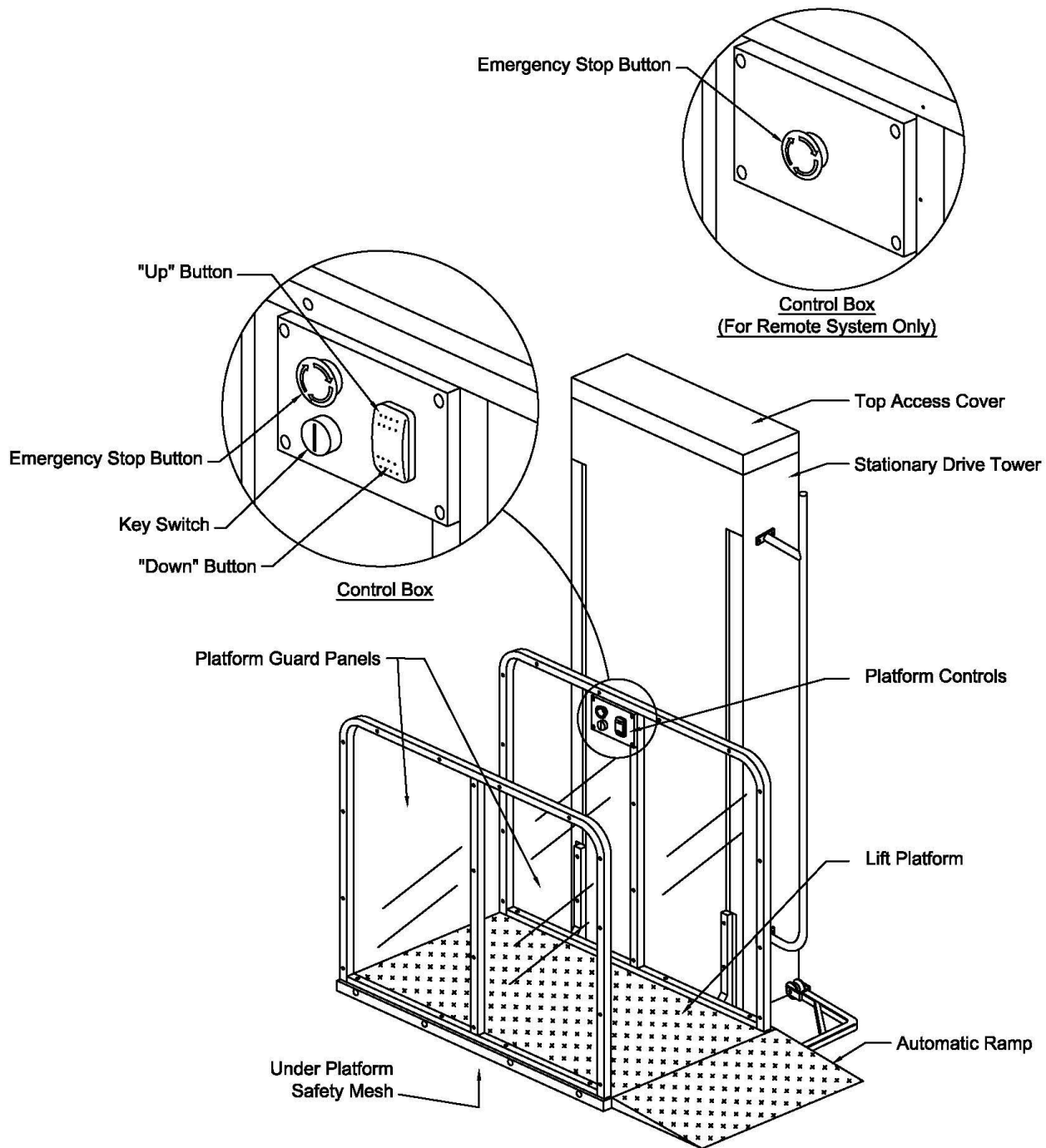
	VPL-SH1-28"	VPL-SH1-52"	VPL-SH1-72"	VPL-SH1-105"
Standard Platform Sizes (inside measurements)	34" x 48.0" Custom Sizes Available*	34.0" x 48.0" or 34.0" x 54.0" Custom Sizes Available*	34.0" x 48.0" or 34.0" x 54.0" Custom Sizes Available*	34.0" x 48.0" or 34.0" x 54.0" Custom Sizes Available*
Maximum Lifting Height	28.0"	52.0"	72.0"	105.0"
Power Supply	24 VDC AC Operation*	115 AC or 24 VDC	115 AC or 24 VDC	115 AC or 24 VDC
Input Source	110-120 Volt, 4 A 60 Hz battery charger Optional AC Operation*	110-120 Volt, 15 A 60 Hz dedicated service or 110-120 Volt, 4 A 60 Hz battery charger	110-120 Volt, 15 A 60 Hz dedicated service or 110-120 Volt, 4 A 60 Hz battery charger	110-120 Volt, 15 A 60 Hz dedicated service or 110-120 Volt, 4 A 60 Hz battery charger
Motor and Drive	1 HP, AC @ 1750 rpm and VDC @ 1500 rpm ACME Screw Drive with tooth belt reduction	1 HP, AC @ 1750 rpm and VDC @ 1500 rpm ACME Screw Drive with tooth belt reduction	1 HP, AC @ 1750 rpm and VDC @ 1500 rpm ACME Screw Drive with tooth belt reduction	1 HP, AC @ 1750 rpm and VDC @ 1500 rpm ACME Screw Drive with tooth belt reduction
Motor Controller	24 VDC relay control	24 VAC relay control	24 VAC relay control	24 VAC relay control
Speed (Maximum)	AC: 7.5 feet per minute DC: 6.8 feet per minute	AC: 7.5 feet per minute DC: 6.8 feet per minute	AC: 7.5 feet per minute DC: 6.8 feet per minute	AC: 7.5 feet per minute DC: 6.8 feet per minute
Safety	✓ Emergency Stop ✓ Safety Under-pan ✓ Manual Lowering	✓ Emergency Stop ✓ Safety Under-pan ✓ Manual Lowering	✓ Emergency Stop ✓ Safety Under-pan ✓ Manual Lowering	✓ Emergency Stop ✓ Safety Under-pan ✓ Manual Lowering
Ramp	Mechanical Auto	Mechanical Auto	Mechanical Auto	Mechanical Auto
Maximum Lift Capacity	750 lbs	750 lbs	750 lbs	750 lbs
What separates us from the rest	✓ Light Weight ✓ Easy to Install ✓ Small foot print ✓ Unique installation ✓ Small tower ✓ Polycarbonate side walls for added durability	✓ Light Weight ✓ Easy to Install ✓ Unique installation ✓ Aluminum and stainless steel construction ✓ Interchangeable 90° exit ✓ Field reversible ✓ Polycarbonate side walls for added durability	✓ Light Weight ✓ Easy to Install ✓ Unique installation ✓ Aluminum and stainless steel construction ✓ Interchangeable 90° exit ✓ Field reversible ✓ Polycarbonate side walls for added durability	✓ Light Weight ✓ Easy to Install ✓ Unique installation ✓ Aluminum and stainless steel construction ✓ Interchangeable 90° exit ✓ Field reversible ✓ Polycarbonate side walls for added durability

* - ask for additional details and availability in your location

Typical Components I



Typical Components II



Anchoring Point Locations

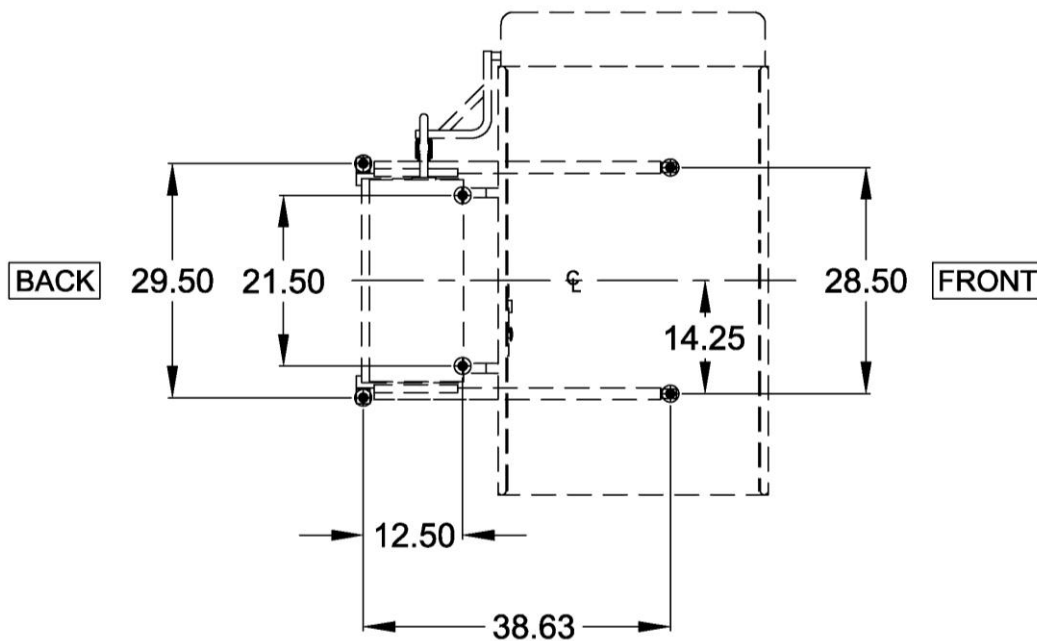
Anchor Requirements:

The lift must be fastened to a concrete foundation using six(6) x 1/2" (3/8" bolt) x 4-1/2" long (minimum) concrete anchors suitable for the environment.

*******Important to always use the Six Anchoring Positions on base of the Lift*****
DO NOT USE FOUR (4)**

Follow selected concrete anchor manufacturers guidelines and applicable codes.

Anchor Locations:



Foundation Requirements:

Reinforced concrete:

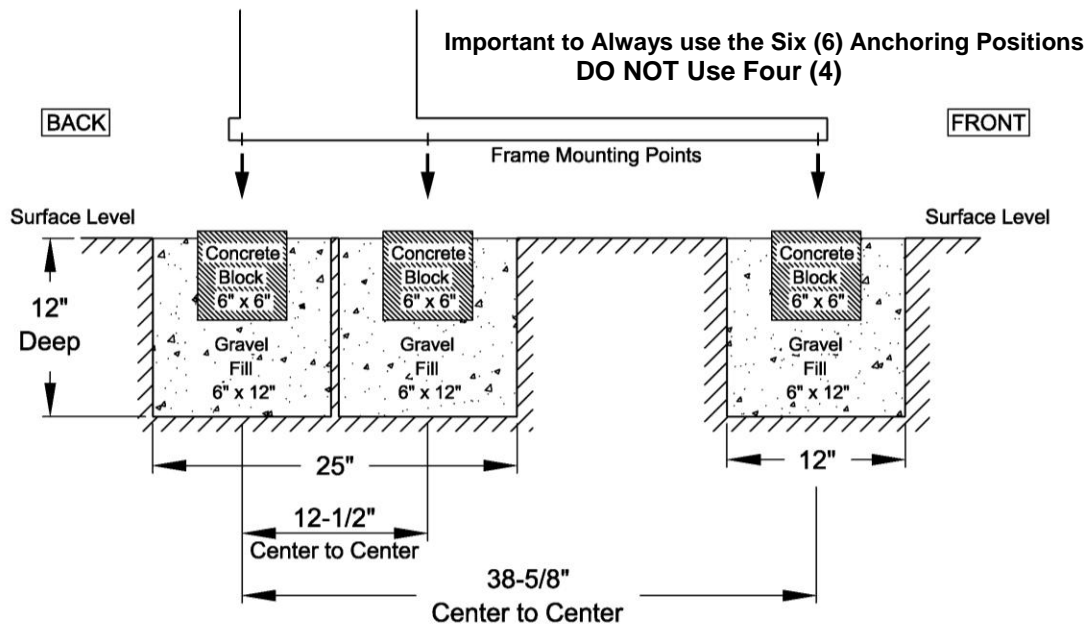
- 6" thick, 3,500 psi minimum compressive strength (SH1-28 and SH1-52)
- 10" thick, 3,500 psi minimum compressive strength (SH1-72)

Gravel Requirements:

8 to 10 Bags of $\frac{3}{4}$ inch Gravel

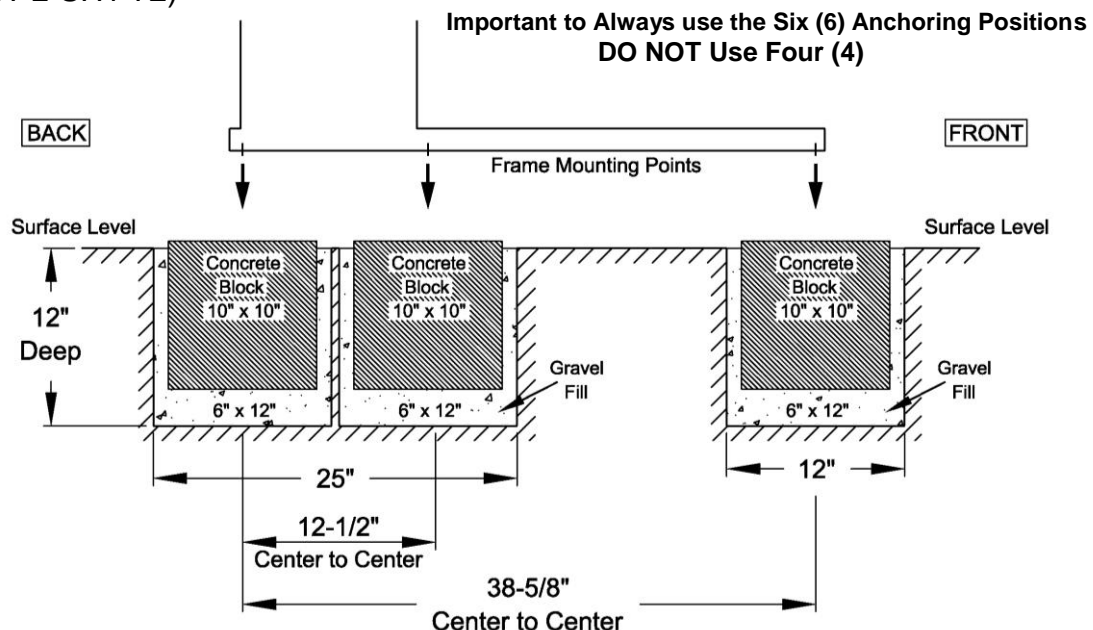
Foundation Details:

(for VPL-SH1-28 and VPL-SH1-52)

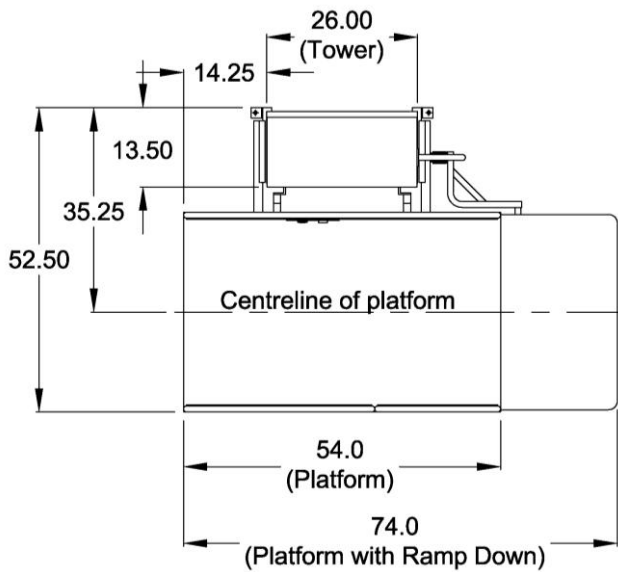


Foundation Details:

(for VPL-SH1-72)

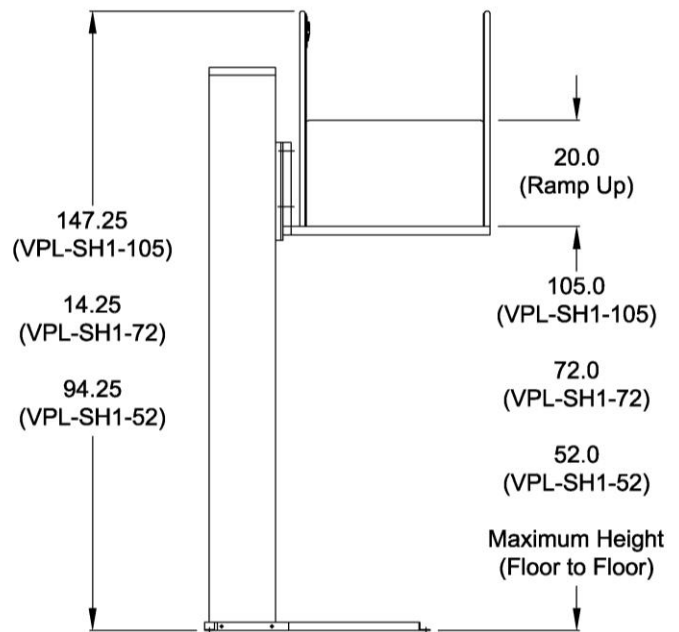


General Dimensional Details I (Right-hand Unit Shown)

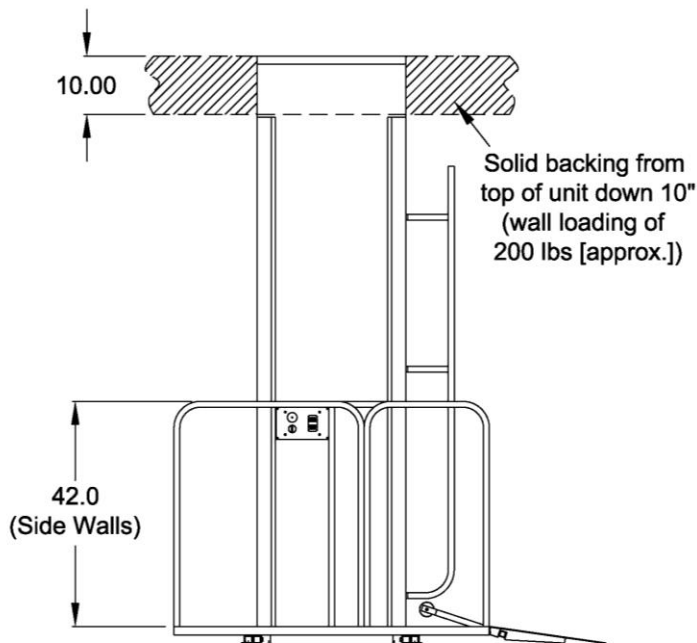


Top View

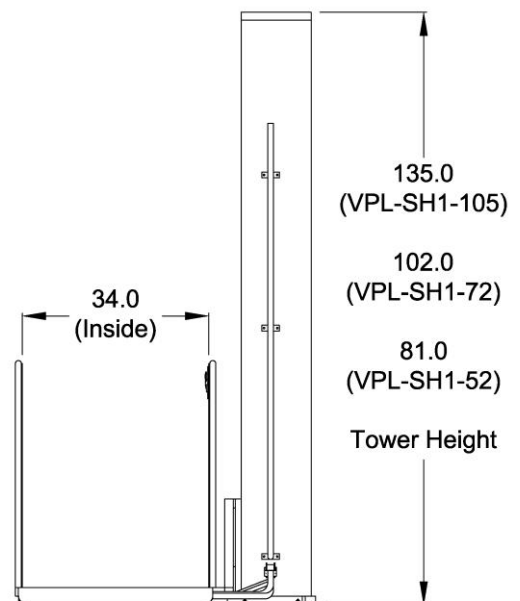
Premium Platform Lifts (54" Platform)



Side View (Platform Up)

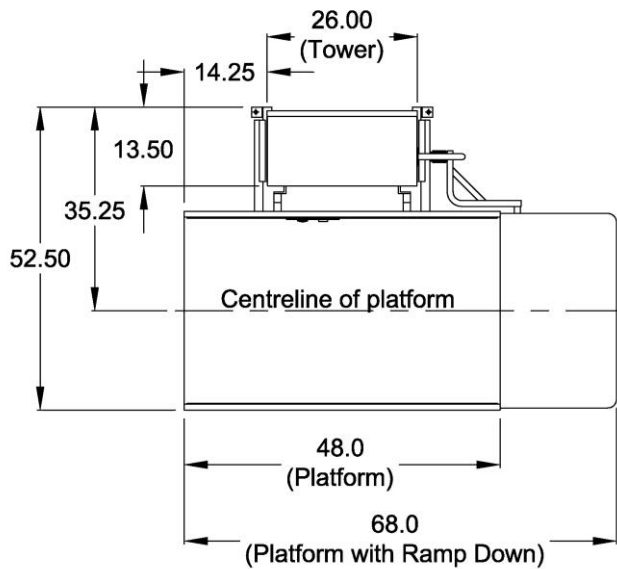


Front View



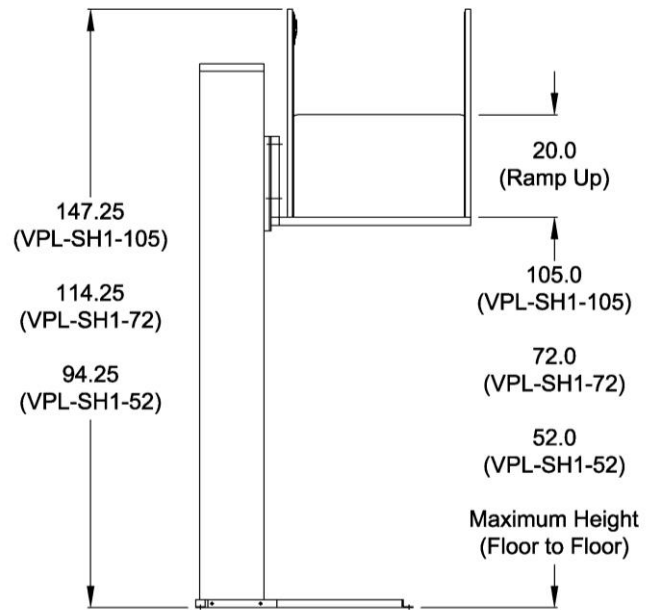
Side View (Platform Down)

General Dimensional Details II (Right-hand Unit Shown)

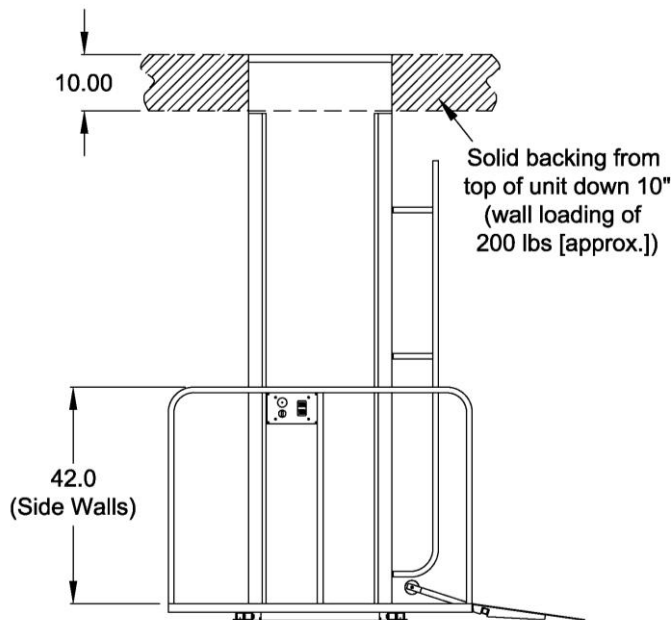


Top View

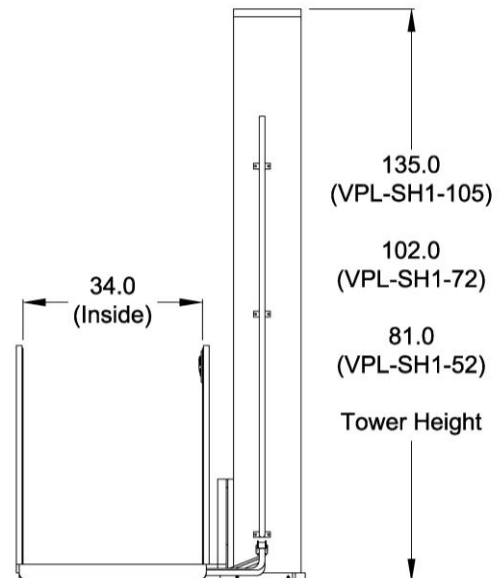
Standard Platform Lifts (48" Platform)



Side View (Platform Up)



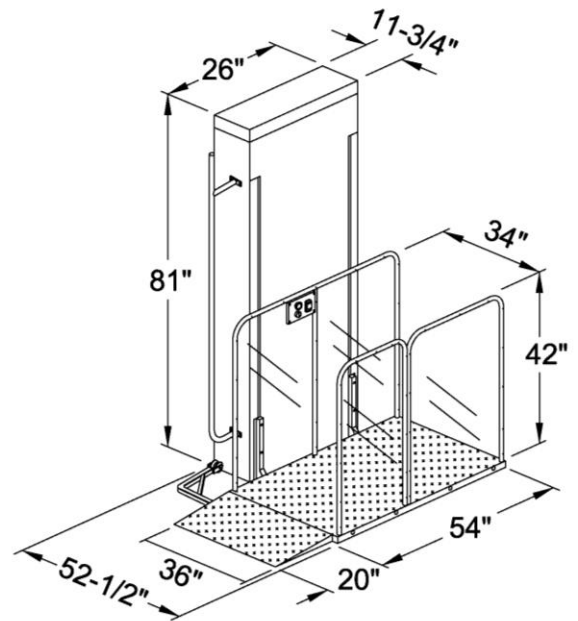
Front View



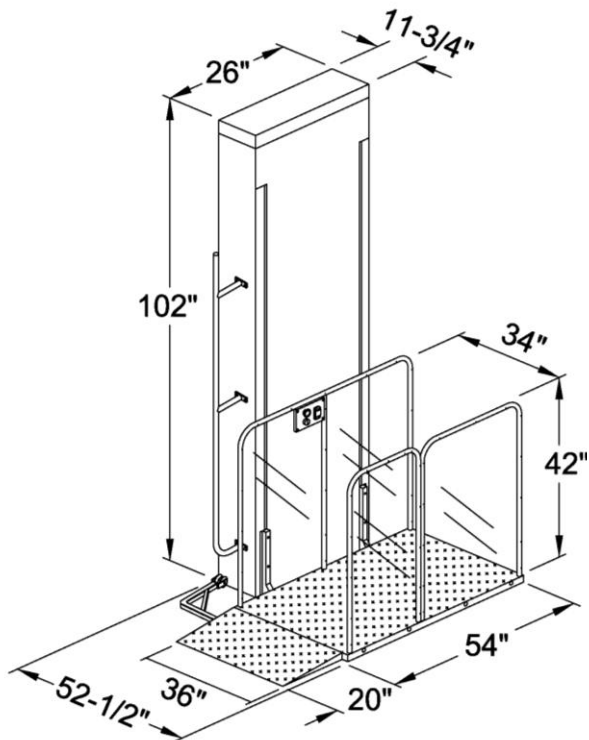
Side View (Platform Down)

Additional Dimensional Details I
(Left-hand Unit Shown)

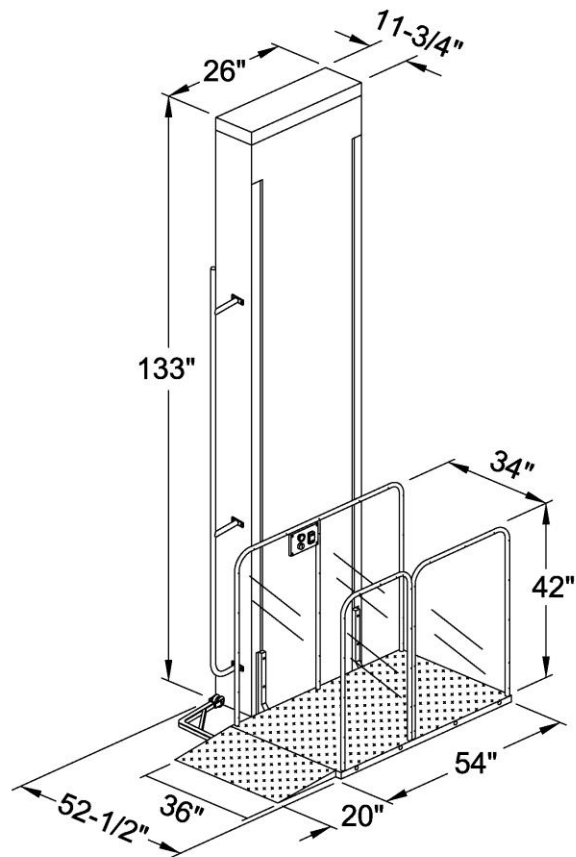
Premium Platform Lifts (54" Platform)



VPL-SH1-52



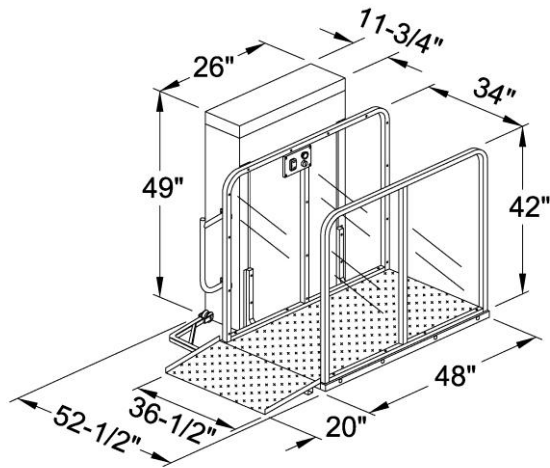
VPL-SH1-72



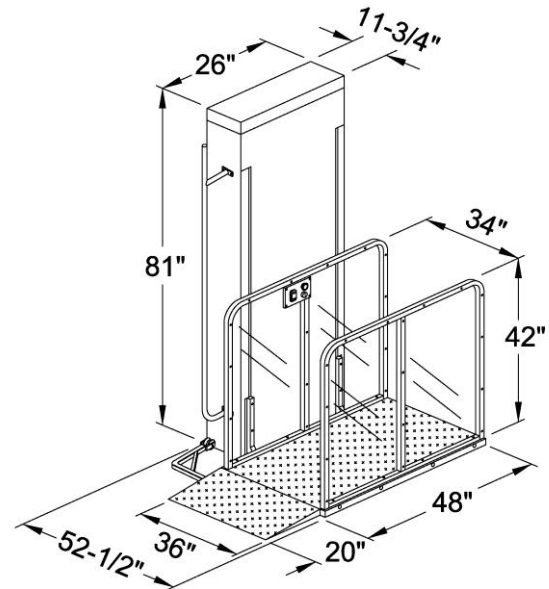
VPL-SH1-105

Additional Dimensional Details II (Left-hand Unit Shown)

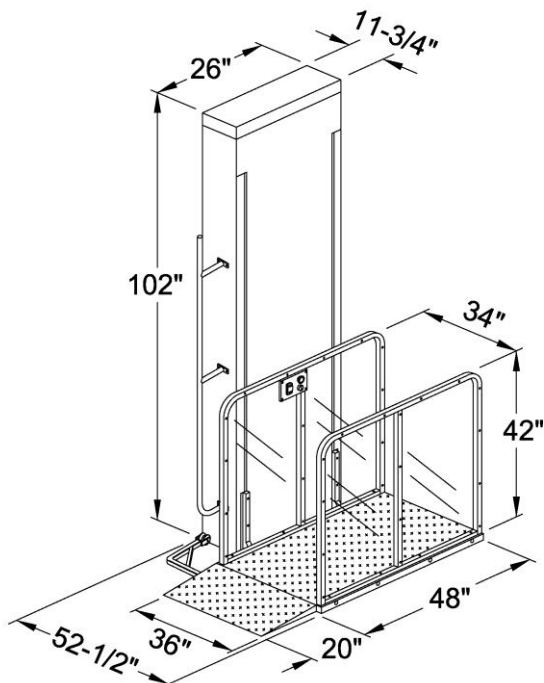
Standard Platform Lifts (48" Platform)



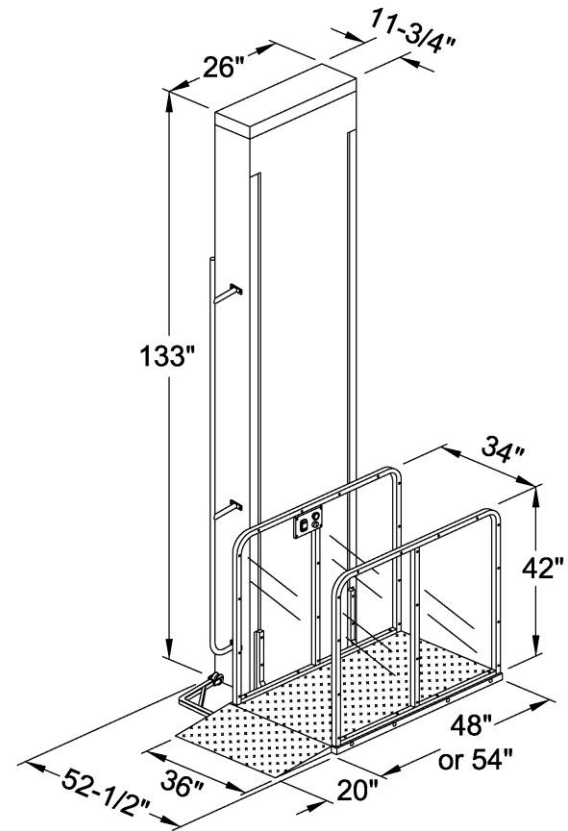
VPL-SH1-28



VPL-SH1-52



VPL-SH1-72

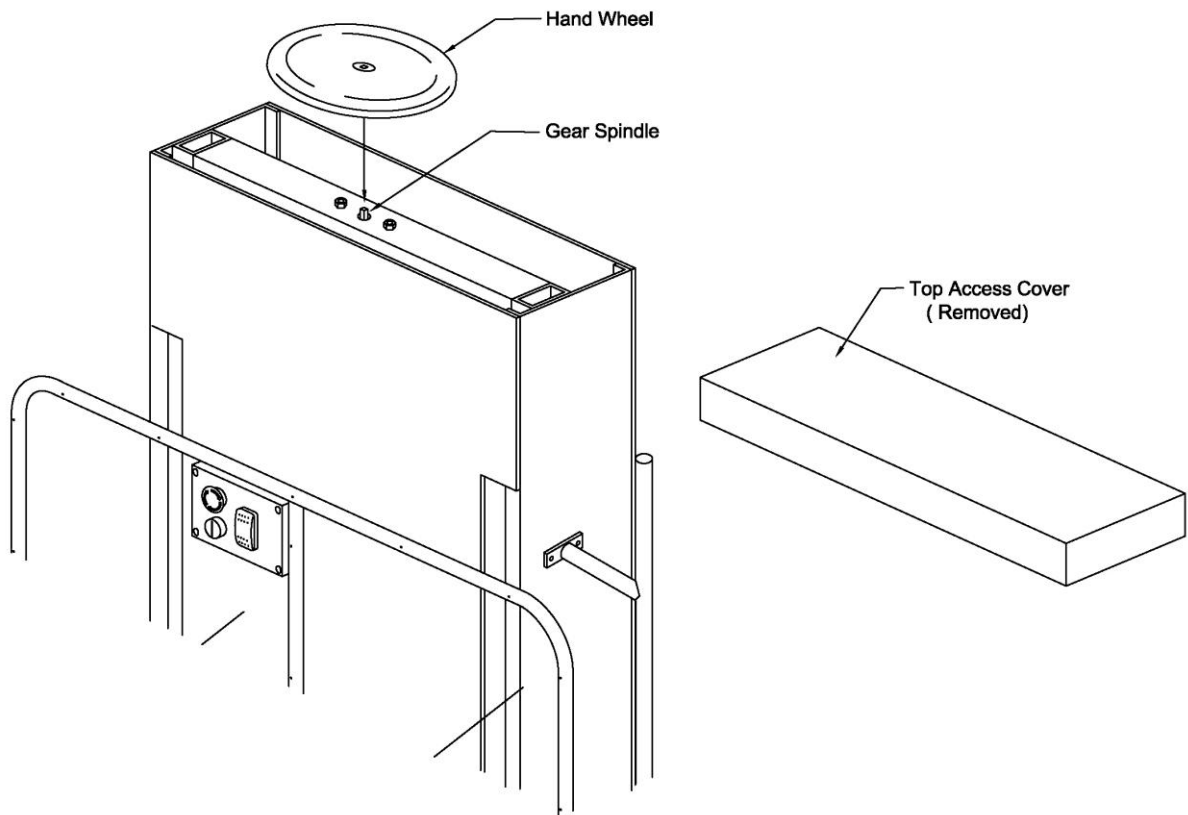


VPL-SH1-105

Emergency Manual Operation

In the event of a power failure, the platform can be manually lowered using an external hand wheel.

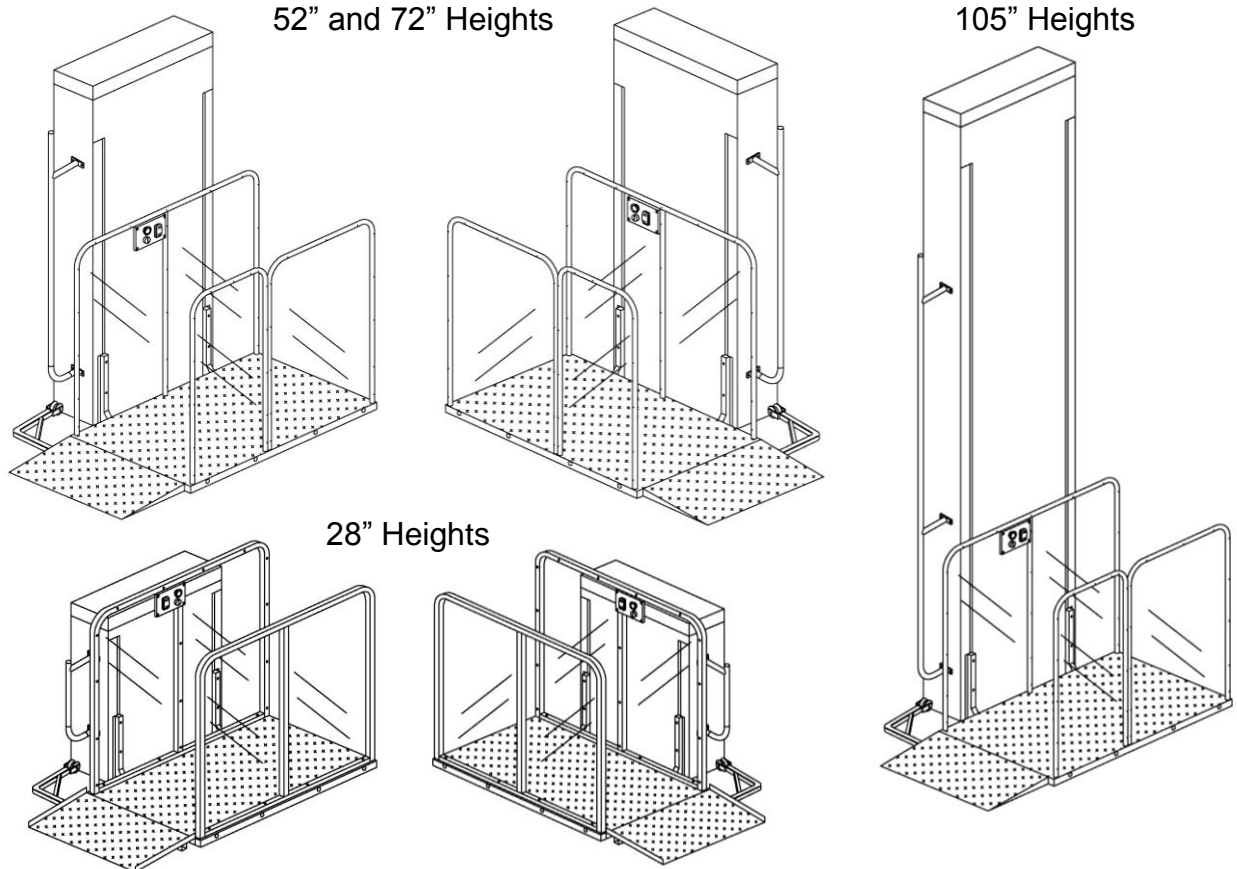
- Unplug the unit from your 110V receptacle or if hard wired, turn off the main power at the main disconnect or breaker.
- Turn the key switch to the off position and remove the key.
Note: The above steps are very important in the event the power is unexpectedly restored.
- Remove the top access cover from the stationary drive tower to expose the protruding gear spindle.
- Attach the hand wheel onto the spindle.
- Rotate the hand wheel clockwise to raise the platform and counterclockwise to lower the platform.



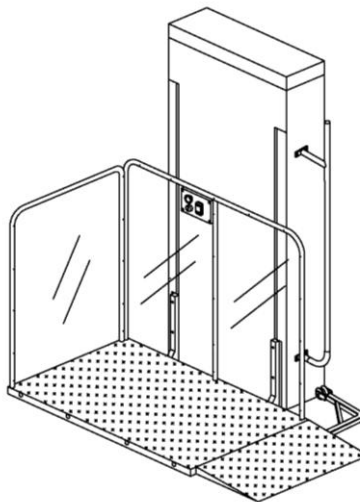
Optional Standard Vertical Lift Configurations

The Standard Vertical Lift has been designed to suit various customer needs and requirements. All these options must be configured by your authorized lift dealer.

1/ The automatic ramp can be located on the left-hand or right-hand side of the platform.

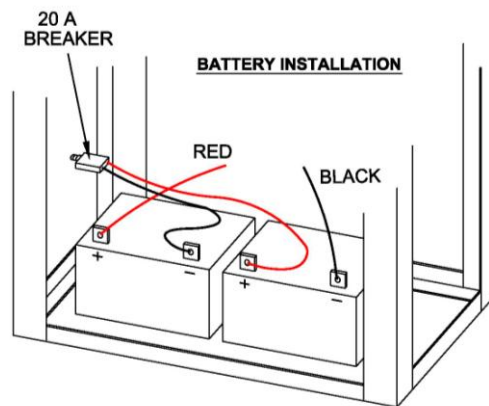


2/ The vertical side panels can be arranged for front exit from the platform.



General Specifications

Rated Load:	750 lbs (340 Kg)
Rated Speed:	3 inches/sec
Power Supply:	110 VAC, 60 Hz, Single Phase, 0.75 kW
Motor:	1 hp, AC (reversible)
Drive System:	Worm gear with tooth belt drive
Operating Controls:	Constant pressure buttons
Surface Material:	Anti-slip surfaces on deck and ramp
Safety Features:	Emergency stop button with audible alarm
Application:	Residential indoor / outdoor use



Optional DC Specifications

Rated Load:	750 lbs (340 Kg)
Rated Speed:	3 inches/sec
Power Supply:	2 x 12 V Batteries; 35 A
Motor:	24 VDC, 750 W
Drive System:	Worm gear with tooth belt drive
Operating Controls:	Constant pressure buttons
Surface Material:	Anti-slip surfaces on deck and ramp
Safety Features:	Emergency stop button with audible alarm
Application:	Residential indoor / outdoor use

Assembly

Your vertical platform lift is shipped disassembled for shipping. The tower section is secured to the wooden pallet. Using a dolly or with rollers, position the base of the vertical platform lift onto the concrete pad(s) at the installation site.

Carefully remove all components and your hardware kit from the packing, leaving the tower section. A typical experienced two-man assembly crew should be able to complete the installation of the lift within 1 hour.

When the tower section is plumb and secured to the concrete foundation, remove the top access cover of the tower. Then, carefully remove the bolts from the front cover panel. Place the panel aside, ensuring that you do not scratch or damage the front surface of the panel. Replace the front panel cover bolts into the holes from which they were removed for safekeeping.

Power Up Test

Ensure the red “emergency button” is in the release position. Connect the vertical platform lift to the main power supply.

Turn the “key switch” to the “on” position. Test the lift in the upward and downward directions and finalize the upper limit switch settings with the actual porch landing height. Note – there is a 1 to 2 second delay when changing directions in the “up” or “down” operations. Ensure the lift stops at the appropriate point in the downward position.

CAUTION - To ensure safety, the preliminary power up test should only be conducted close to the operator control panel, as the lift is not anchored and not a fully secured for stability.

During operation, verify that the main tower guide wheels are centred and making proper contact with each face of the vertical guide rails. Also, verify that the automatic ramp guide wheel is engaging the guide rail and properly releasing at the bottom landing without gapping.

Apply additional grease to all moving parts where necessary, especially the worm gears and safety lock nuts. Check that the motor to worm gear pulley belt has the proper tension. Ensure that the right and left carriage wheels that support the platform are turning freely.

Set the upper landing limit switch so that the platform automatically stops at the desired height of the second floor landing.

Ensure safe upward and downward operation and functionality of the lift platform underpan safety stop feature. The unit should stop when engaging the underpan during downward operation.

Secure the front tower panel to the tower frame using all the securement screws. Ensure the front panel cover is properly aligned so that there is adequate clearance/ space on each side of the panel so it does not rub or contact the carriage lifting brackets.

Final Anchoring

As a final step, re-check that the vertical platform lift has been properly leveled and positioned on the reinforced concrete pad(s). Use metal shims to adjust for any gapping with the concrete pad(s).

Ensure that there is adequate clearance for the automatic ramp to retract and deploy during normal operation.

Fastened tower to the concrete foundation using all 6 x M10 anchor bolts. Re-check the final position of the vertical platform lift after every 2 bolts are installed to ensure that the frame has not moved/shifted from its final desired location. The bolts should be a minimum 4-1/2" long suitable for the environment. Follow selected concrete anchor manufacturers guidelines and applicable codes.

Re-check all wire securement locations to ensure the wires are secured and that adequate clearance has been provide to prevent pinching, abrasion and/or contacting of the wires between any moving parts.

For DC units only – Check that the charger is wired properly and operational.

Re-install the top access cover and secure with securement hardware.

CAUTION – Before operating the vertical platform lift, ensure that all parts are securely tightened and that the base of the lift is stable and securely anchored to the foundation.

Note – Do not test the operation of the vertical platform lift through the electrical panel, by using the AC magnetic motor starter or the AC 'up' and 'down' magnetic starters. This bypasses the motor circuit protection and if adequate capacitor discharge time is not allowed, this could damage the start-up capacitor.

The installation is complete.

Operating Instructions

General

- Whenever possible, distribute weight evenly on the platform.
- Ensure your hands and feet are inside the platform before operation.
- Secure all loose clothing and/or personal articles inside the platform.
- Use extreme caution when operating the lift near children or other pedestrians.
- Do not exceed the maximum capacity of 750 lbs.
- Do not bypass any controls or sensors.
- Do not use lift to transport freight.
- Do not operate the lift if it has been damaged.

Platform Controls

When the lift is in the designated landing, enter onto the lift platform, ensuring that all loose articles are completely inside the platform area.

Insert the key into the key switch and turn clockwise (1/4 turn) to the “on” position. Then press and hold the direction button (“up” ↑ or “down” ↓) in the desired direction of travel. The platform will automatically stop when the desired landing is reached. Releasing the button at any time will stop the platforms movement.

If necessary, it is possible to change directions once the platform is between landings. To do this, simply release the current directional button and then press the other directional button.

Automatic Ramp

The ramp retraction and deployment is automatic and does not require actions from the user. When the platform is not at the lower landing position, the ramp is automatically raised to act as a platform stop/guard. When the platform approaches the desired landing, the ramp is automatically deployed.

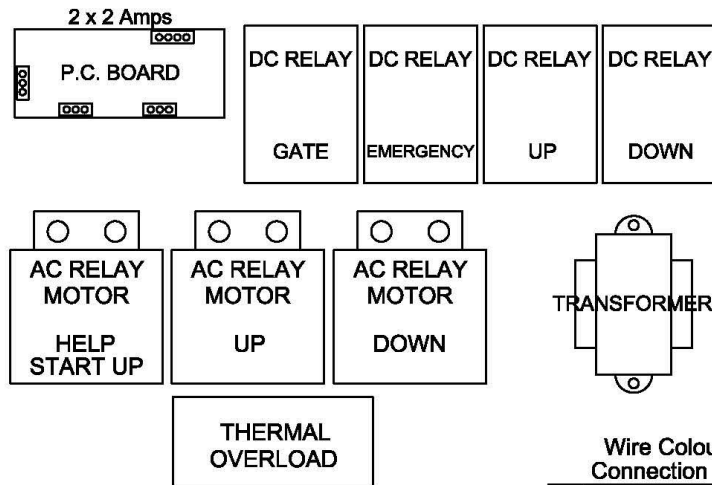
Do not enter or exit the platform lift until the automatic ramp has been fully deployed. Do not stop or impede the movement of the ramp while it is in motion.

Emergency Stop Button

The emergency stop button can be pushed at anytime to stop the operation of the lift. When pressed, all the panel controls become disabled. To reset the button, and return the lift to normal operation, simply turn the button counter-clockwise and the button will ‘pop’ back out to the reset position.

When the button is pressed, it also activates an audible “beeping” alarm. This button can also be used to call for assistance.

AC Electrical Schematic



Wire Colour / Connection Point	
25	Brown
24	Orange
23	(-)
22	(+)
21	Yellow to TS5

Key Switch
Down Limit
Down Control

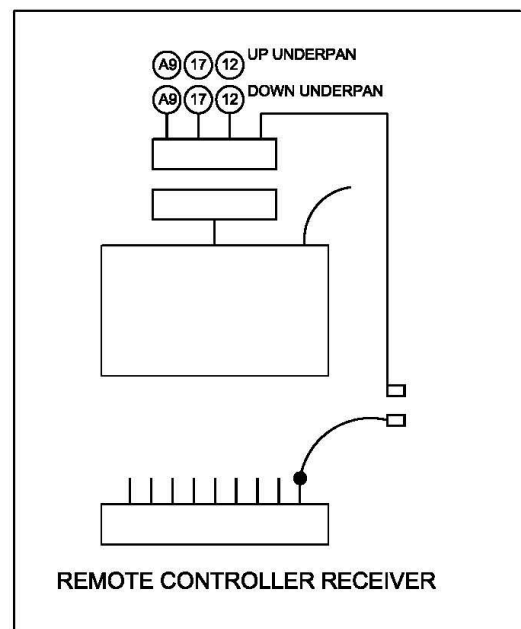
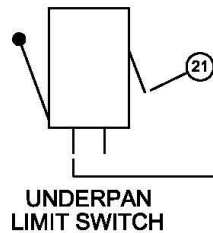
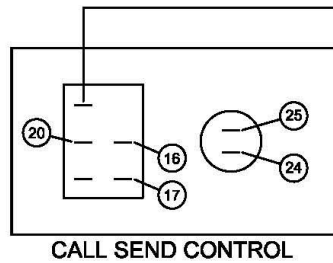
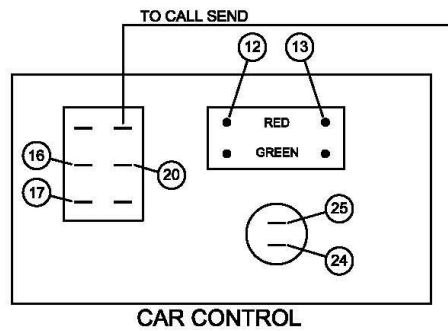
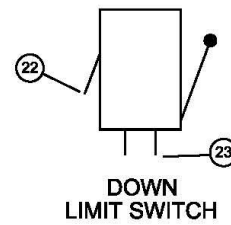
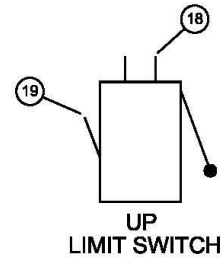
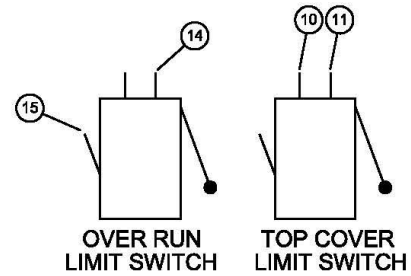
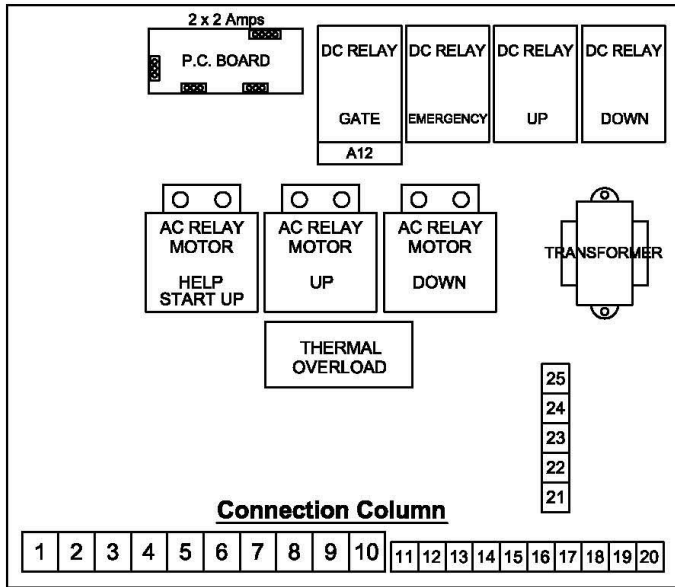
Connection Column Main Cable Hook-Up to Operator Box

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
White	Black	U ₁	U ₂	Z (Capacitor) 100u	Z ₂	Z ₁ (Capacitor) 300	V ₁	V ₂	10 and 11 Link	Red	White	(+)	(-)	Blue to TS2	Green to TS1	(+)	(-)	Black S ₁ , S ₂ to TS6	
Power Supply				Motor						Limit Switch				Emergency Stop	Over Height Limit	Controller Up	Up Limit	Down Control	

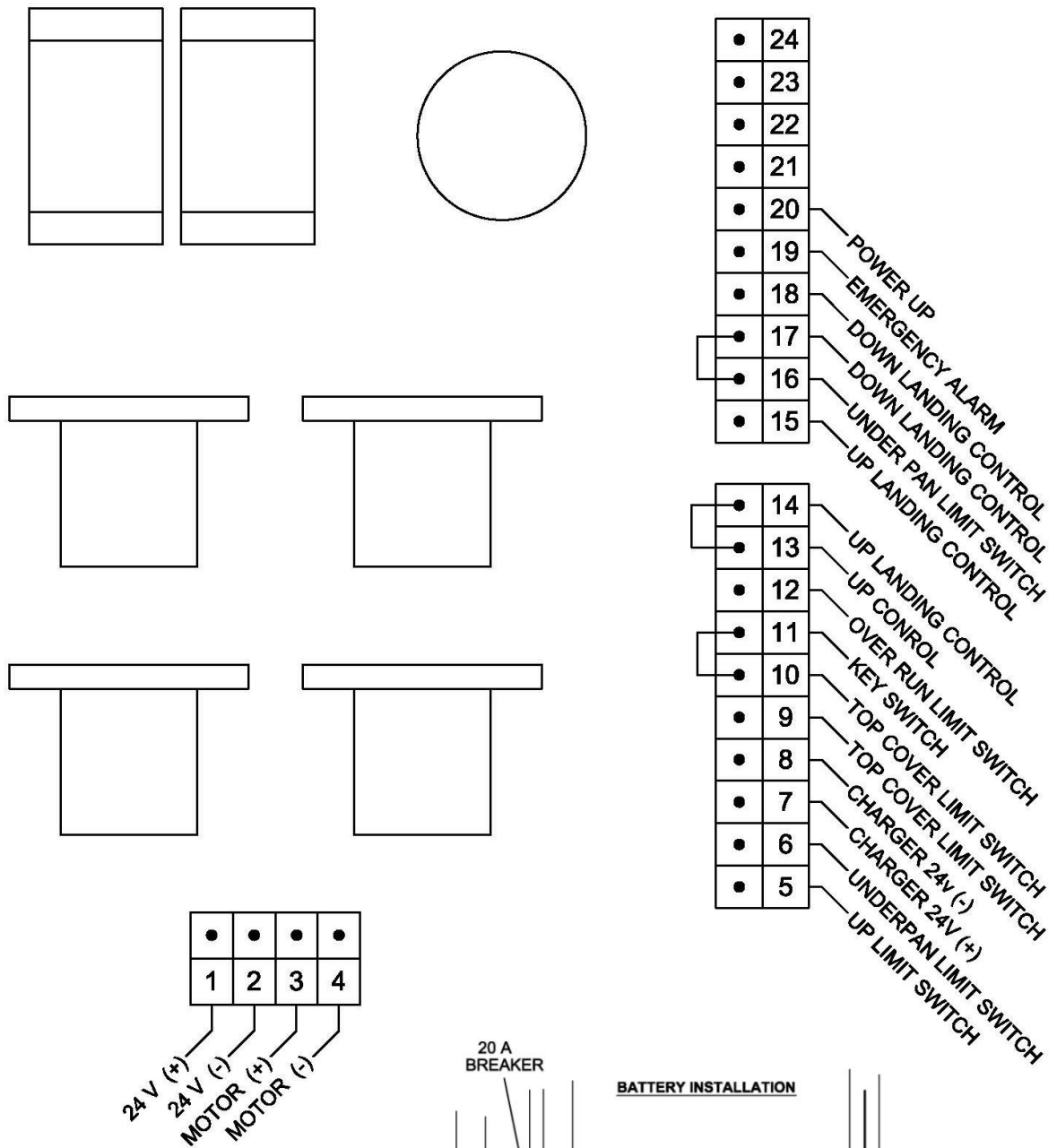
Under Safety Pan: (+) Connect to S1

(-) Connect to Controller Down T6

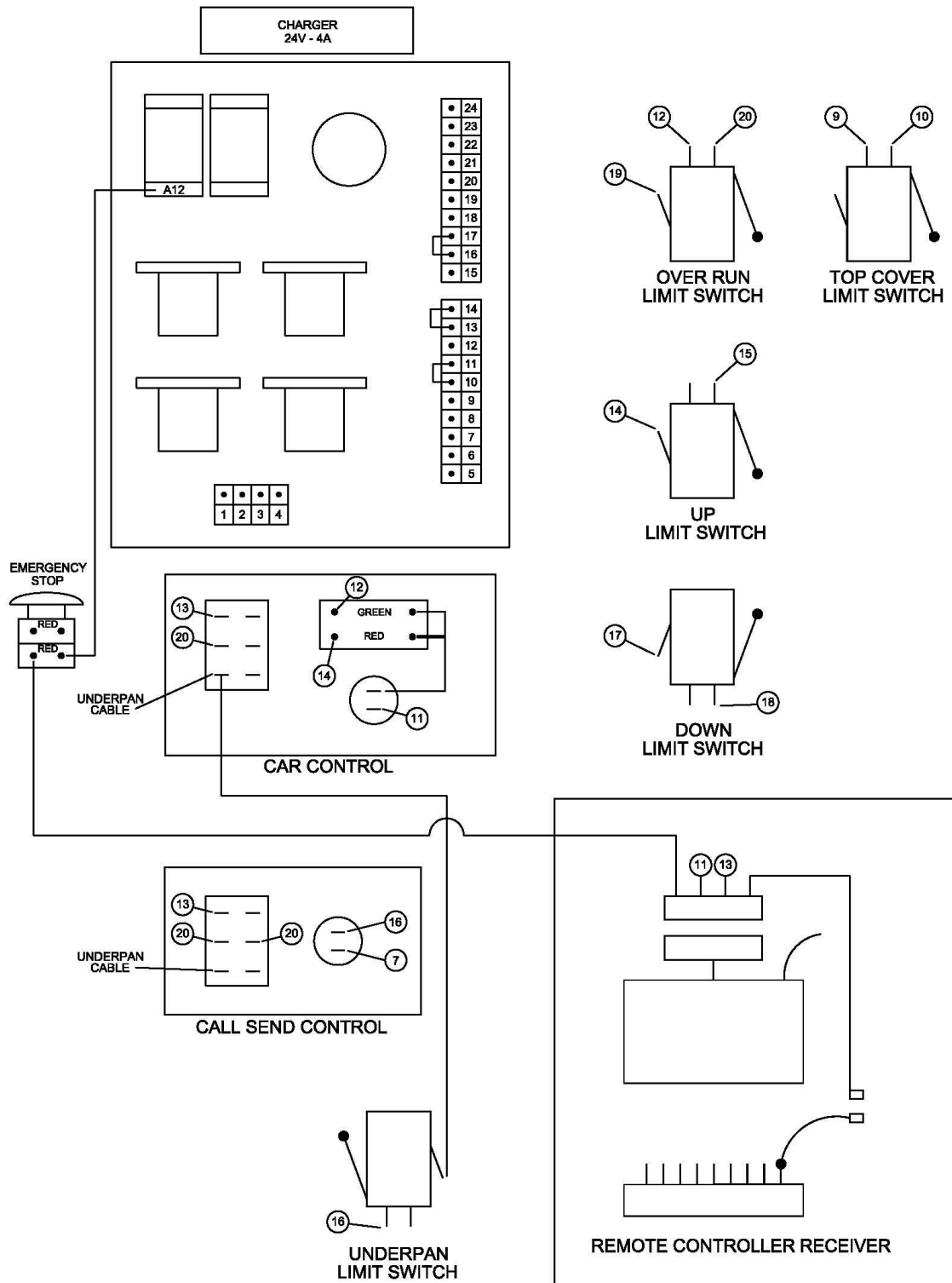
AC Electrical Schematic



DC Electrical Schematic



DC Electrical Schematic



External Call/Send Station Installation

When an installation requires the use of an external Call/Send Station option, the control box panel cover, located behind the front panel cover, must be removed.

The Call/Send station offers the same controls as the operator box in the carriage, with the use of a key, constant pressure switches for up and down signaling and an emergency stop button.

The Call/Send wires are secured to the connection column as shown below:

Calling the Lift to your Landing

To call the lift to your landing, insert the key and turn it to the 'on" position.

If you are on the lower landing, push and hold the downward direction button to bring the lift to your landing. When the platform reaches the lower landing, it will automatically stop.

Note - Remember the buttons are continuous pressure and that the lift will stop moving as soon as you release the button.

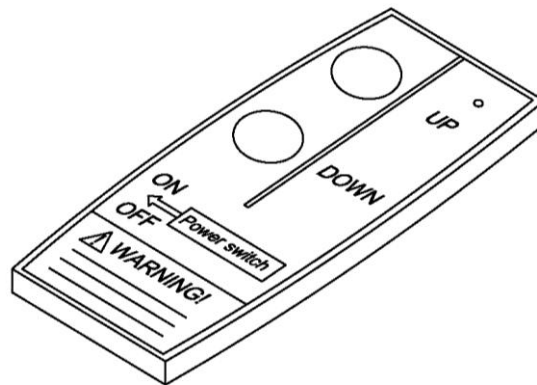
When the platform has arrived at the landing, turn the key to the "off" position and remove the key.

Motor Details

The motor is single phase, with a two valve capacitor (1100 W, 1 HP AC – reversible). To properly initiate the start-up of the motor and lift, a dedicated 15A service is required. It is recommended that the unit does not exceed the length of the supplied AC power cord when plugged into a dedicated AC outlet.

Note - the use of long extension cords (especially of the braided wire type) from the main AC outlet, is not recommended. Use of such extensions may cause voltage and current drops from the power source to the device. This degeneration of power can adversely delay the start-up operation of the device, due to large start-up current levels being drawn by the motor.

Optional Remote System Controller



Battery size: 12V/23A

Trouble Shooting

A quick check of the operating instructions in this manual may prevent an unnecessary service call. Before calling your authorized dealer for service, refer to the following checklist.

If the lift will not operate:

- Check for a blown fuse, tripped circuit breaker or tripped GFI electrical outlet.
- Check that all interlocks are clear and free from debris
- Check that the emergency stop buttons are not activated
- Check that the key is fully inserted and turned to the 'on' position
- Check for obstructions in the path of the rollers
- If the platform prematurely stops while going down, move the platform back up and check for an obstruction underneath the platform

If the lift will not operate after checking the above items, contact your local authorized dealer for service. When talking to your authorized dealer, please specify your serial number and date of purchase to ensure a proper diagnosis can be determined and original replacement parts can be used.

Maintenance

Every 6 months, the homeowner is required to inspect the following functions:

- a) General operation of the vertical lift.
- b) Operation of the under pan safety sensors.
- c) Emergency stop switch.
- d) Free of debris under vertical lift.

Once a year, it is mandatory to call your authorized dealer to perform the annual inspection that includes all maintenance and safety inspections and repairs where necessary.

Regular maintenance is essential for keeping your lift in proper operating condition. We strongly recommend that you only use authorized dealers to perform all required maintenance, service and repair work.

Every 12 months, the following maintenance should be performed:

- a) General operation of the vertical lift.
- b) Operation of the under pan safety sensors.
- c) Emergency stop switch.
- d) Free of debris under vertical lift.
- e) Operation and alignment of the upper limit switch (activate by hand)
- f) Operation of the lower limit switch. Lower the platform to the ground using the hand crank in order to release the load on the lower switch. The lift should not run until you restore the lift above the limit switch by moving the platform up with a hand crank.
- g) Up relays. Check that the relays are not stuck in the activated position. Use a multimeter to verify that the contact is open when the relays are not activated.
- h) Verify that all fasteners are secured with adequate tension and not loose or deteriorated.
- i) Grease the block bearings located at each end of the ball screws
- j) Lubricate ramp linkages and pivot points.
- k) Lubricate worm gear with silicone grease.
- l) Inspect and clean vertical travel guides.
- m) Inspect pulley belt for proper tension and excessive wear.

Note: After the installation is complete, the dealer/installer shall instruct the owner in the proper use, operation and maintenance requirements of the lift. Instructions are also to include emergency procedures and safety rules and precautions.

The installer should also supply the owner with a vertical platform lift Owner's Manual, detailing the operating, safety and maintenance procedures of the lift.

Manufacturer's Limited Warranty

This warranty applies to the VPL-SH1 Vertical Platform Lift.

Terms of warranty:

Serenity Health Care Products guarantees to the original buyer, that the new VPL-SH1 Vertical Platform Lift sold by an authorized Serenity Health Care Products dealer is, at the time of delivery to the buyer and for a period of thirty-six (36) months, free from defects in materials and workmanship, and meets its performance criteria.

Coverage:

Serenity Health Care Products agrees that during the three year period, to either repair or replace, at its sole discretion, any parts which under proper and normal conditions of use, prove to be defective or fail to meet performance criteria. The above warranty is subject to the following conditions, exclusions and limitations listed below:

Conditions:

- The main frame weldment is covered under a three year warranty.
- The motor drive system, electrical components including relays, capacitors, etc. are covered under a one year warranty.
- This warranty only applies to products installed and maintained by Serenity Health Care Products authorized dealers in compliance with all applicable local and national codes.

Exclusions and Limitations:

- Equipment modified other than by Serenity Health Care Products, is not covered by this warranty.
- Damage to the exterior coating, considered outside of normal use, is not covered by this warranty.
- Items added to the equipment by the buyer or user, are not covered by this warranty.
- Any damages to items added the Serenity Health Care products, caused by other Serenity Health Care supplied equipment, is not covered under this warranty. Additionally, any damage incurred to the Serenity Health Care Products supplied equipment by the other equipment, is also not covered by this warranty.
- Any use of the equipment outside the criteria published in the current Serenity Health Care Products brochure, or beyond the manner, in which a prudent person would normally use the equipment, will void this warranty (ie abuse or misuse).
- Labour and shipping are not covered by this warranty.

All claims for warranty cover parts under the above warranty must be presented to Serenity Health Care Products by an authorized dealer within forty-five (45) days of the event upon which any warranty claim is made. Serenity Health care Products reserves the right to refuse the warranty claim should the claim not satisfy the basic requirements.

For all warranty inquiries, please contact your Serenity Health Care Products authorized dealer.

Please complete the Serenity Health Care Products warranty card located in your Owner's Manual.