



**Safety and Operating  
Manual**

**July 2017**

**SAFETY** You are responsible for the safe use of this product. Unsafe use could result in property damage, serious personal injury, serious injury to others or a fatality.

Do not operate the door until you understand all the safety instructions. If you have any questions, contact your door provider or go to [www.powerliftdoors.com](http://www.powerliftdoors.com) for assistance.

**Recognize safety information and labels:**

- The labels are located on the pump and at eye level at each door frame jamb.
- Understand the label's meaning and the potential risk it identifies.
- Follow all information on the label.
- Keep the labels in good condition.
- Replace unreadable labels by contacting:  
your door installer or [www.powerliftdoors.com](http://www.powerliftdoors.com)

**Follow all safety instructions:**

- Read and understand all safety, operation and maintenance instructions.
- Allow only those persons who have read and understand the safety and operating instructions to operate the door.
- Turn off power when making electrical connections or conducting any electrical work.
- Install all electrical connections per federal, state and local codes.
- Do not re-adjust or modify the settings completed by the door installer.
- Avoid electrical shock by not operating controls with wet hands or standing on a wet surface.
- Operate the door only for the door's intended purpose.
- Inspect and verify that the area in the path of the door swing is free of equipment, vehicles or obstructions. Do not operate the door until the door path is clear.
- Stay alert and watch with a clear line of sight during the door's operation.
- Keep fingers and extremities away from pinch points located between the door and door frame.
- Keep children and pets away from the door while door is operating.
- Maintain the door in good operating condition.
- Wear safety glasses and protective clothing when using hydraulic connections.
- If a remote control option is installed, do not leave the remote transmitters where unauthorized persons could operate the control. Operate only with a clear line of sight.
- If cane bolts are provided, verify the bolts are not engaged before door operation.
- We advise that you do not operate your door in winds exceeding 40 miles per hour.
- We advise that you do not leave your door open in winds exceeding 40 miles per hour.
- We advise that you do not leave your door open to heavy snow or rain loads.
- It is your responsibility to change all remote control batteries yearly.

**Contractor or Owner responsibilities to complete your door**

A rubber membrane is provided as a weatherstripping to cover the hinges at the top of the door. The weatherstripping should be fastened prior to door cladding installation. The weatherstripping should be placed behind the steel above the door, approximately 2" in height. The weatherstripping will lay across the hinges, and be fastened to the door. Care should be taken to remove wrinkles and provide a smooth neat appearance when

installing the weatherstripping. Any door trim and cladding must be sealed with a good quality sealant to prevent moisture from penetrating the door envelope. The weatherstripping is fastened on the outside of the door cladding. In the case of steel panels, fasten the weatherstripping with screws in every raised rib location through the J-channel.

Inspect the door to verify that the vertical margins are equal between the door and the building jambs. Window framing, windows and service doors can now be installed.

When installing standard 1" thick door trims and cladding, a distance of 5 ½" must be maintained between the trim or cladding above the header and the trim or cladding on the door. This allows the door to open past 90 degrees without damaging either material. For any cladding material depth/thickness more than 1", add the additional depth to the clearance height by raising the building materials above the building header or lowering the materials on the door. Operate the door to verify clearance between the door and building materials.

Each door will have closeouts installed at the manufacturing location. If concrete has been installed into the building, then the PowerLift installer will adjust the closeout to ensure a proper seal. If the concrete has not been installed in the building the contractor or owner may need to adjust the closeouts to ensure a proper seal.

Seal the door frame to building jamb materials with a color matching sealant.

PowerLift Hydraulic Doors are fabricated with the anticipation that the door will be insulated and completed with a liner panel. No additional door modifications are required if this application is undertaken in the future.

## **Maintenance**

Yearly inspection of all hoses, lines and connectors for signs of deterioration is recommended. Contact your door installer if deterioration is detected.

Yearly inspection of all remotes should be completed. Check for signs of battery deterioration. All remote batteries should be changed yearly to avoid any deterioration problems.

Yearly inspection of all moving parts and frame work for signs of wear. Contact your door installer if you notice any points of wear.

In high moisture buildings, such as dairy barns and livestock confinements, PowerLift recommends that you inspect the hydraulic oil monthly for signs of moisture accumulation. If you notice moisture accumulation you should replace the hydraulic oil. You should also protect the power unit from exposure to high moisture areas, if it is located in a high moisture area it should be covered to prevent moisture from getting into power unit components.

## **Cane Bolts**

On larger width doors, cane bolts may have been added to the inside of the truss near the center of the door. While the PowerLift door can withstand significant wind loads, the use of cane bolts adds additional strength at the door truss location. If severe or abnormal weather is anticipated it is recommended to engage the cane bolt by lowering the bolt into a hole in the floor slab. This procedure will aid in preventing unwanted building or door damage. Under normal weather conditions the cane bolt may be left in the raised position or unengaged position.

***Never operate the door when the cane bolt is in the lower position or engaged position.***

## **Operating Systems**

Congratulations on your purchase of a PowerLift Hydraulic Door. Your door has been professionally installed and temporarily operated by our installation representative. Your door operation is powered by one or more of the following options.

### Option A: Standard 220 Volt Power Unit

The electrical motor and pump are combined into one self contained unit. This unit will be located adjacent to the door. The Owner is responsible for providing electrical power connections for the pump unit. The motor is 2HP or 5HP 220 volt and requires a 30-amp breaker. Electrical power installation is to meet federal, state and local codes. The pump unit contains a contact toggle style switch. Push the toggle in the desired direction according to the labels (raise or lower). The toggle switch requires constant pressure to operate. When pressure is released from the switch, the pump operation will cease causing the door to stop moving and stay at the door's present position.

### Option B: 110 Volt Power Unit

The electrical motor and pump are combined into one self-contained unit. This unit will be located adjacent to the door. The Owner is responsible for providing electrical power connections for the pump unit. The motor is 110 volts and requires a 20-amp breaker. Electrical power installation is to meet federal, state and local codes. The pump unit contains a contact toggle style switch. Push the toggle in the desired direction according to the labels (raise or lower). The toggle switch requires constant pressure to operate. When pressure is released from the switch, the pump operation will cease causing the door to stop moving and stay at the door's present position.

### Option C: 2HP 208-230 3-Phase/460 3-Phase Power Unit

The electrical motor and pump are combined into one self-contained unit. This unit will be located adjacent to the door. The Owner is responsible for providing electrical power connections for the pump unit. The motor is 2HP 208-230 3-Phase/460 3-Phase volt and requires a 10-amp breaker. Electrical power installation is to meet federal, state and local codes. The pump unit contains a contact toggle style switch. Push the toggle in the desired direction according to the labels (raise or lower). The toggle switch requires constant pressure to operate. When pressure is released from the switch, the pump operation will cease causing the door to stop moving and stay at the door's present position.

#### Option D: 5HP 208-230 3-Phase/460 3-Phase Power Unit

The electrical motor and pump are combined into one self-contained unit. This unit will be located adjacent the door. The Owner is responsible for providing electrical power connections for the pump unit. The motor is 5HP 208-230 3-Phase/460 3-Phase volt and requires a 20-amp breaker. Electrical power installation is to meet federal, state and local codes. The pump unit contains a contact toggle style switch. Push the toggle in the desired direction according to the labels (raise or lower). The toggle switch requires constant pressure to operate. When pressure is released from the switch, the pump operation will cease causing the door to stop moving and stay at the door's present position.

#### Option E: 7.5HP 220-volt Power Unit (Only on MAX PowerLift Doors)

The electrical motor and pump are combined into one self-contained unit. This unit will be located adjacent to the door. The Owner is responsible for providing electrical power connections for the pump unit. The motor is 7.5HP 220 volt and requires a 50-amp breaker. Electrical power installation is to meet federal, state and local codes. The pump unit contains double push button controls. Push the button for the desired direction according to the labels (raise or lower). The buttons require constant pressure to operate. When pressure is released from the button, the pump operation will cease causing the door to stop moving and stay at the door's present position.

#### Option F: 7.5HP 208-230 3-Phase/460 3-Phase Power Unit (Only on MAX PowerLift Doors)

The electrical motor and pump are combined into one self-contained unit. This unit will be located adjacent to the door. The Owner is responsible for providing electrical power connections for the pump unit. The motor is 7.5HP 208-230 3-Phase/460 3-Phase volt requires a 20-amp breaker. Electrical power installation is to meet federal, state and local codes. The pump unit contains double push button controls. Push the button for the desired direction according to the labels (raise or lower). The buttons require constant pressure to operate. When pressure is released from the button, the pump operation will cease causing the door to stop moving and stay at the door's present position.

#### Option G: 15HP 220-volt Power Unit (Only on SuperMax PowerLift Doors)

The electrical motor and pump are combined into one self-contained unit. This unit will be located adjacent to the door. The Owner is responsible for providing electrical power connections for the pump unit. The motor is 15HP 220 volt and requires a 60-amp breaker. Electrical power installation is to meet federal, state and local codes. The pump unit contains double push button controls. Push the button for the desired direction according to the labels (raise or lower). The buttons require constant pressure to operate. When pressure is released from the button, the pump operation will cease causing the door to stop moving and stay at the door's present position.

#### Option H: 15HP 208-230 3-Phase/460 3-Phase Power Unit (Only on SuperMax PowerLift Doors)

The electrical motor and pump are combined into one self-contained unit. This unit will be located adjacent to the door. The Owner is responsible for providing electrical power connections for the pump unit. The motor is 15HP 208-230 3-Phase/460 3-Phase volt requires a 30-amp breaker. Electrical power installation is to meet federal, state and local codes. The pump unit contains double push button controls. Push the button for the

desired direction according to the labels (raise or lower). The buttons require constant pressure to operate. When pressure is released from the button, the pump operation will cease causing the door to stop moving and stay at the door's present position.

#### Option I: 20HP 208-230 3-Phase/460 3-Phase Power Unit (Only on SuperMax PowerLift Doors)

The electrical motor and pump are combined into one self-contained unit. This unit will be located adjacent to the door. The Owner is responsible for providing electrical power connections for the pump unit. The motor is 20HP 208-230 3-Phase/460 3-Phase volt requires a 30-amp breaker. Electrical power installation is to meet federal, state and local codes. The pump unit contains double push button controls. Push the button for the desired direction according to the labels (raise or lower). The buttons require constant pressure to operate. When pressure is released from the button, the pump operation will cease causing the door to stop moving and stay at the door's present position.

#### Option J: Alternative Hydraulics

Located on the pump side and adjacent to the pump are two male pioneer style hydraulic connections. The connectors allow for door operation when the electrical pump has not been or has lost electrical power. Verify that the hydraulic oil in the pump reservoir is compatible with the equipment to operate the door. Use caution and wear eye and personnel protection when connecting and disconnecting the hydraulic connections. If the door is in the open position the weight of the door will cause pressure on the connections. Relieve the pressure by temporarily holding the door open. When connected, operation of the door will be directed by the connected equipment. As an added option you may get Parker couplers which will allow you to hook up to the hydraulics under pressure. Please contact your PowerLift location for more information on this option.

#### Option K: PowerLift PowerPak

The PowerLift PowerPak system is a self-contained unit which is mounted to a two wheeled cart. The Owner will need to provide 1-12v deep cycle battery (PowerLift recommends a group 27 deep cycle battery). The PowerLift PowerPak contains a pendant for door operation. Push the desired button on the pendant (raise and lower) to operate your door. The pendant buttons require constant pressure to operate the door. When pressure is released from the pendant, the pump will cease causing the door to stop moving and stay at the door's present position.

If the remote control option is selected, the remote operates the electrical motor by energizing internally wired relays. Operation of the remote transmitter requires constant pressure on the buttons and will operate identical to the pump motor switch. When pressure is released the pump operation will cease causing the door to stop moving and stay at the door's present position. The remote control requires the use of batteries. These batteries should be changed out yearly to prevent damage to remote system. Should the remote not energize the motor verify that the motor has electrical power or replace the remote control batteries. Small lights on the transmitter will flash when sending a signal to the remote control receiver. Each remote should be inspected each year and the batteries should be checked for signs of corrosion. If the battery shows signs of corrosion they should be changed **immediately** to prevent damage to the transmitter.

While these are the most common operating systems for a PowerLift door there may be special circumstances that require a different operating system. Please contact your PowerLift installer if you have additional questions regarding your operating system.

### **Temporarily operating the door until permanent power is connected.**

We recommend that the door be temporarily operated by live hydraulic power. The door is provided with pioneer type hydraulic nipples located on the hydraulic lines near the pump. Tractors or other hydraulic equipment can operate the door using these connections. Hydraulic connections should be left attached for the entire door cycle to prevent pressure buildup.

Not recommended, but if a generator must be used to supply temporary electrical power, **Only use a generator that can provide at least 10,000 watts of continuous power.** Do Not starve the pump unit of electrical power by using undersized generators. This will adversely affect the lifetime of the power unit and **VOID YOUR WARRANTY.**

### **Door Operation with Permanent Power**

PowerLift hydraulic doors are operated by the means of a deadman switch. In the event of an emergency, release pressure on the controls. This will stop the door at its present location.

To operate the door manually:

Verify that the area in the path of the door is free of obstructions and that the optional cane bolts are not engaged.

On the pump, push and continue pushing the button labeled in the desired direction. This will energize the pump causing the door to move in the selected direction.

To stop, release pressure on the button. The door will remain in whatever position the door was in when the button pressure was released.

When the door has reached the door cylinders' limit (completely open or completely closed) the pump will bypass and door movement will cease. This will cause a change in the sound of the pump's operation. Release pressure on the pump buttons. The door cannot travel any further in the same direction.

To operate the door using the remote controls:

Verify that the area in the path of the door is free of obstructions and that the optional cane bolts are not engaged.

On the remote control, select the button labeled in the correct direction. Push and continue pushing the selected button. This will energize the pump motor causing the door to move in the desired direction.

When the correct position is reached or if the door is completely closed or completely open, release pressure on the remote button.

When leaving the door in the open position, it is recommended that the door be lowered to an 85-degree angle. In the event of a rain storm any moisture will flow away from the building and not be trapped between the door and the building.

If it is windy, use common sense. If you are concerned or if you would close any other type door, close your PowerLift door. It is not good for your building to have large openings during windy conditions. When closed wind forces transfer into the building and have no effect on your door.



## PowerLift Hydraulic Door Warranty

### 1. WHAT IS COVERED BY THIS WARRANTY

The PowerLift Hydraulic Door Manufacturing and Installing Location [hereinafter "PowerLift"] warrants to the Purchaser that the hydraulic door which is the subject of this sale will be free from defects in material and workmanship for the duration of the Lifetime of the Building. PowerLift warrants to the Purchaser the following items for the duration from substantial completion of the project shown in their respective headings. Substantial completion is when PowerLift's contracted work is complete.

FOR THE LIFETIME OF THE BUILDING (Original Purchaser Only):

- PowerLift will repair or replace any steel frame work or steel parts that have failed due to defects in the material or workmanship

FOR 3 YEARS:

- PowerLift will repair or replace all hydraulic or electrical systems, paint, or weather-stripping that malfunction or cease operation during this time frame due to malfunction of the product for reasons that are covered under the PowerLift warranty. For information about situations not covered by the warranty please consult the "Not Covered by this Warranty" section.

If the purchaser discovers a claim within the applicable warranty period, he must promptly notify the PowerLift Hydraulic Door Manufacturing and Installing Location. In no event shall such notification be received by PowerLift later than two weeks after the expiration of the applicable warranty period. Within reasonable time after written notification of a warranty claim has been received, PowerLift will repair any failure of the hydraulic door in compliance with this Warranty. During the first year PowerLift will cover all applicable parts, labor and travel expense. During years 2-3 PowerLift will cover all applicable parts and the customer will be billed for a service fee based on travel time and onsite labor expense. Your PowerLift location will discuss the service fee expense with you prior to onsite work and provide you with an estimate based on expected travel and on site time, note that this is only an estimate and charges may vary depending on the complexity of the repair and the onsite repair time.

These remedies are the purchaser's sole and exclusive remedies for a breach of warranty.

### 2. WHAT IS NOT COVERED BY THIS WARRANTY

PowerLift does not warrant:

- (a) Damage caused by use of the hydraulic door for purposes other than those for which it was designed
- (b) Damage which occurs at the attachment points of the door frame to the building framework

- (c) Damage to painted surfaces due to contact with chemicals, soil, gravel, landscape materials or plants including grass or weeds, herbicides, pesticides, concrete or asphalt
- (d) Damage caused by disasters such as fire, flood, or lightning
- (e) Damage caused by wind that exceeds the maximum designed wind load for your hydraulic door
- (f) Damage due to deterioration caused by moisture permeation of the interior and/or exterior door covering
- (g) Damage due to deterioration caused by interior chemical vapors, dust, excessive humidity, condensation, algae, mold, mildew, animal waste or saliva
- (h) Damage due to flying or falling objects including hail or storm debris
- (i) Damage caused by anyone other than PowerLift's employees or agents
- (j) Damage caused to the hydraulic system due to battery deterioration in remote controls
- (k) Damage or injury cause by battery deterioration in remote controls
- (l) Damage caused by other abuse or misuse
- (m) Damage caused due to providing insufficient power to the electrical system due to electrical connections or powering with an insufficient generator (generator requirements are provided in Owner's Manual and on a sticker on the face of the pump)
- (n) Normal wear and tear

This warranty is void if structural members of the hydraulic door are altered without the written approval of PowerLift.

### 3. NO OTHER WARRANTY AND DISCLAIMER OF WARRANTY

Unless modified in writing a signed and dated by both parties, this Warranty is understood to be the complete and exclusive warranty from PowerLift to the purchaser in connection with the sale of the hydraulic door. It supersedes all prior warranties, oral and written, and other communication between the parties relating to the hydraulic door warranty. No employee or agent of PowerLift or any other part is authorized to make any warranty in addition to those made in this Warranty other than an Officer of PowerLift.

THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, HABITABILITY, AND FITNESS FOR A PARTICULAR PURPOSE.

### 4. LIMITATIONS OF REMEDIES

In no case shall PowerLift be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of savings or revenue, loss of use of the hydraulic door or any associated equipment, cost of capital, cost of any substitute facilities or services, downtime, the claims of third parties including customers, and injury to property. The limitation of consequential damages does not apply for injury to the person in those jurisdictions where such limitation is precluded. Some states do not allow limits on warranties, or on remedies for breach in certain transactions. In such states, the limits in this paragraph and in paragraph 3 above may not apply.

### 5. ALLOCATION OF RISK

This Warranty allocates the risk of product failure between PowerLift and the purchaser. This allocation is recognized by both parties and is reflected in the price of the hydraulic door. The purchaser acknowledges that he has read this Warranty, understands it, and is bound by its terms.

POWERLIFT HYDRAULIC DOOR WARRANTY REGISTRATION

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State/ Province: \_\_\_\_\_

Zip Code: \_\_\_\_\_ Telephone: \_\_\_\_\_

Installation Date: \_\_\_\_\_

Installation Address: \_\_\_\_\_

Zip Code: \_\_\_\_\_ Alternate Telephone: \_\_\_\_\_

Fabricator: \_\_\_\_\_

Address: \_\_\_\_\_

Zip Code: \_\_\_\_\_ Telephone: \_\_\_\_\_

Installing Representative: \_\_\_\_\_

Serial #: \_\_\_\_\_

Remit to:

PowerLift Door Consultants Inc.

P.O. Box 311

Lake Benton MN 56149