



## **Installation Instructions/Operation and Maintenance Manual**



### Models:

All Models

### **Table of Contents:**

Safety Precautions	2
Product Information	2
Installation Instructions	4
Replacement Parts List	9
Inspection and Maintenance	11
Warranty Certificate	

## **Contact Information**

#### Mail

PS Safety Access 1150 South 48th Street Grand Forks, ND 58201

# **Local Phone** 701.746.4519

**Toll Free Phone** 877.446.1519

#### Website

pssafetyaccess.com

## Email

4psinfo@psindustries.com

**Hours of Operation** 

8 A.M. to 5 P.M. CT Monday – Friday

### **IMPORTANT!** Read entire Instruction and Operations Manual to become familiar with the product.

**NOTICE** This product is a fall protection product. The effectiveness of the product is directly related to the proper installation and operation of this product. Failure to properly maintain this product **will** affect performance.

### **Publication Notice**

This manual has been compiled and published covering the latest product descriptions and specifications.

The contents of this manual and the specifications of this product are subject to change without notice.

PS Safety Access™ reserves the right to make changes without notice in the specifications and materials contained herein and shall not be responsible for any damages (including consequential) caused by reliance on the materials presented, including but not limited to typographical and other errors relating to the publication.

PS Safety Access and/or its respective suppliers may make improvements and/or changes in the product(s)/service(s) offered and/or the program(s) at any time without notice.

Retain this manual for future reference.

If you would like to download a copy of this manual, please go to pssafetyaccess.com

Product registration is an essential step to protecting your product, register Online at psindustries.com/contact/register-your-product/



## **Safety Precautions**

## The following icons are used throughout this Manual.

**A DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**A WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**A CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderated injury.

**NOTICE** Indicates manufacturer's statement of additional information.

**IMPORTANT!** Indicates a required action.

**CRITICAL** Indicates a vital component to product performance.

## **Product Information**

**NOTICE** Unauthorized modification of or to the product voids this Limited Warranty. Authorized modifications, received in writing from PS Industries® Incorporated, as long as the modification is accomplished in strict accordance with PS Industries' instructions, does not void warranty. If this product is modified or altered without manufactures permission, manufacturer is no longer responsible for the product design, engineering, or performance and owner assumes all responsibility. To request product modifications contact PS Industries Incorporated, 1150 S. 48th Street, Grand Forks, ND 58201, phone 877-446-1519, email: 4psinfo@psindustries.com

#### I. General Information

- A. This manual contains information regarding installation, operation, and maintenance of the PS Safety Access' SafeMezz® Downward Gate.
- B. PS Safety Access recommends that the owner implement a regular preventative maintenance program to inspect and maintain the SafeMezz Downward Gate at a minimum, in accordance with the recommendations in this manual.

## **II. Operation Guidelines**

- A. The SafeMezz Downward Gate is designed to meet OSHA Railing Standard 1910.28 and 1910.29(b).
- B. Operation in a manner other than intended could result in damage or less than acceptable performance at time of need, for which the manufacturer will not be held responsible.

### **III. Safety Precautions**

- A. Ensure opening is clear of all obstructions through the entire proposed travel of the SafeMezz Downward Gate during operation.
- B. Comply with all OSHA and ANSI Safety Regulations and/or company safety policies when installing.
- ▲ DANGER Ensure area below installation is blocked off from personnel during installation, and mounting surface is capable of supporting all loading. Structural analysis of mounting surface is the responsibility of the owner.

## IV. Storage Prior to Installation of Product

A. Store materials in a dry, ventilated location. If outdoor storage is required, block materials and tarp in a tent-like arrangement, elevated above the product with open sides to allow airflow.

## V. Installation Site Preparation

**NOTICE** Before starting site preparation and installation of the SafeMezz Downward Gate, read the entire Operation and Maintenance Manual and review all installation instructions thoroughly.

- ▲ DANGER Opening must be guarded or installation personnel must wear fall protection equipment and be tied off.

  Do not allow personnel near unprotected leading edge during installation!
  - A. Clear work area of any debris.
  - B. Ensure you have the necessary tools available.
  - C. Obtained all required permits.
  - D. Personnel: Determine the appropriate number of personnel required to perform installation and have them readily available at the project site. (2-3 people recommended)
  - E. Ensure all installation personnel utilize appropriate fall protection equipment and procedures during installation.

## **Product Information**

## VI. Operation

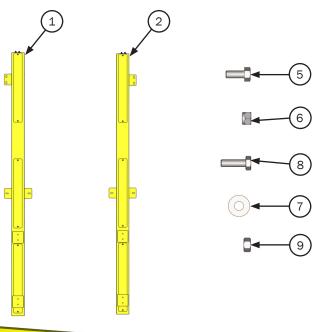
- A. To Open SafeMezz® Downward Gate:
  - 1. Push the "OPEN" button on the Push Button Station.
- B. To Close SafeMezz® Downward Gate:
  - 1. Push the "CLOSE" button on the Push Button Station.

## **VII. SafeMezz Downward Gate Part List**

A. Review inventory to ensure all parts are present for assembly/installation. Refer to part list below.

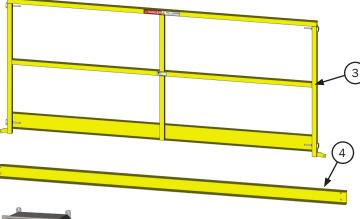
## **Recommended Tools:**

- 1. Two (2)  $\frac{1}{2}$  Socket and Ratchets
- 2. One (1) Phillips Head Screwdriver
- 3. One (1) Tape Measure
- 4. One (1) Level
- 5. Depending on type of anchors/fasteners, additional tools may be required.



# MGD Pneu/Elec Part List (As shipped)

ITEM #	DESCRIPTION	QTY
1	MGD;LEFT COLUMN ASM	1
2	MGD;RIGHT COLUMN ASM	1
3	MGD;GATE ASSEMBLY	1
4	MGD;CROSSBAR	2
5	BOLT;HEX5/16"18X3/4GR5ZN	2
6	NUT;NYLOCK 5/16"18 ZN	2
7	WASHER;FLAT 5/16" ZN	16
8	BOLT;HEX 5/16"-18X1" ZN	8
9	NUT;HEX 5/16"18 GR2ZN	8
10	MGD;PNEU/ELEC CONTROL PANEL-PC	1
11	CONTROL TWO BUTTON NEMA 1	2
12	MGD;PHEU/ELEC TUBING KIT	1
13	STROBE LIGHT;AMBER	1



# MGD Pneu/Pneu Parts List (As shipped)

ITEM #	DESCRIPTION	
1	MGD;LEFT COLUMN ASM-PNEU	1
2	MGD;RIGHT COLUMN ASM	1
3	MGD;GATE ASSEMBLY	1
4	MGD;CROSSBAR	2
5	BOLT;HEX5/16"18X3/4GR5ZN	2
6	NUT;NYLOCK 5/16"18 ZN	2
7	WASHER;FLAT 5/16" ZN	16
8	BOLT;HEX 5/16"-18X1" ZN	8
9	NUT;HEX 5/16"18 GR2ZN	8
10	MGD;PNEU/PNEU CONTROL PANEL-PC	1
11	MGV;PNEU PUSH BUTTON ASSY PCY	2
12	MGD;PNEU/PNEU TUBING KIT	1

## VIII. SafeMezz® Downward Gate Installation

**NOTICE** Refer to parts list on Page 3 for part item numbers and descriptions.

## **STEP 1.** Mounting First Column.

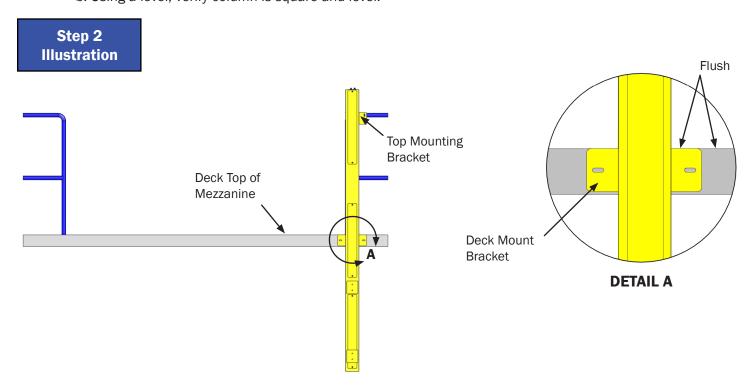
- a. Refer to Approved for Construction Drawings for clear opening width.
- b. Determine the centerline point and mark onto existing floor surface.





STEP 2. Place Right Column Assembly with top of deck mount bracket flush with top of mezzanine deck.

- a. Clamp column assembly in place.
- b. Using a level, verify column is square and level.



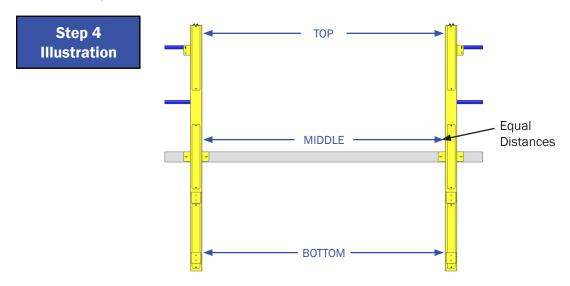
- **STEP 3.** Place Left Column Assembly with top of deck mount bracket flush with top of mezzanine deck.
  - a. Clamp column assembly in place.
  - b. Using a level, verify column is square and level.

**CRITICAL** Top of Deck Mount Bracket MUST be flush with top of mezzanine deck.

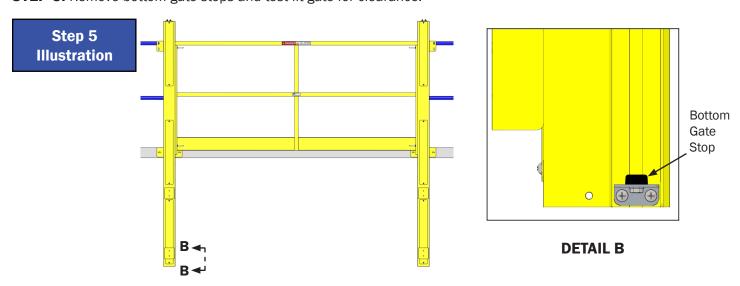




**STEP 4.** Verify distances at top, middle, and bottom of columns are equal.

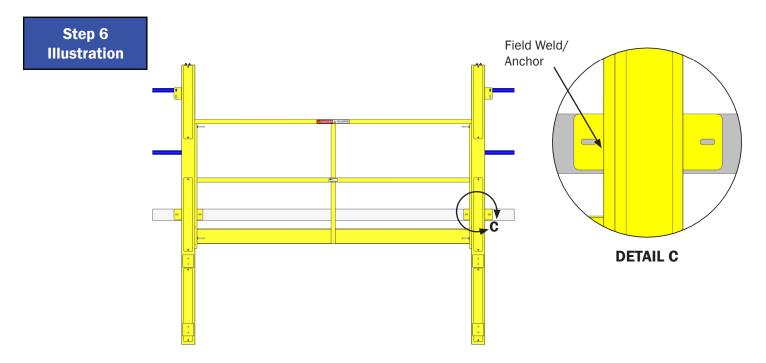


**STEP 5.** Remove bottom gate stops and test fit gate for clearance.



**STEP 6.** Field weld or fasten both columns to railing and deck (Mounting fasteners provided by others, <u>NOT PS</u> Safety Access).

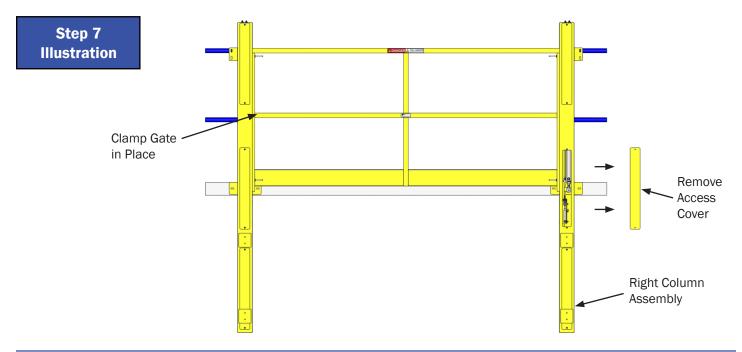
**A WARNING** Tighten all fasteners to a minimum torque of 10 ft-lbs unless otherwise specified.



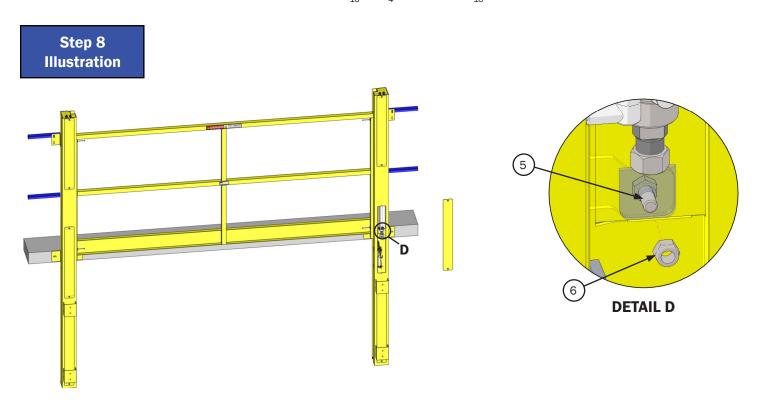
**NOTICE** Mounting bolts not included.

**STEP 7.** With bottom gate stops removed from columns.

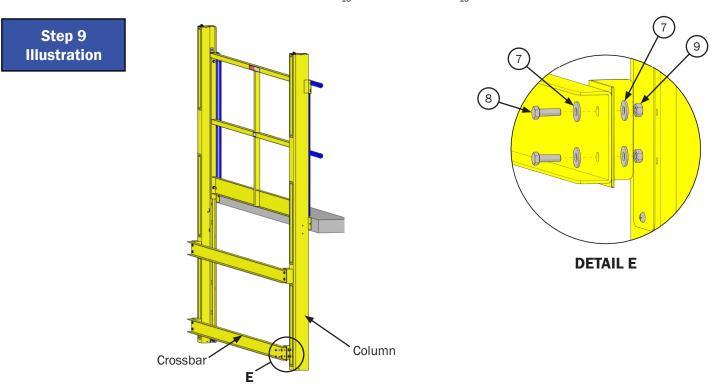
a. Clamp gate in place and remove access cover on right column assembly.



**STEP 8.** Fasten gate to cylinder end using supplied  $\frac{5}{16}$ " x  $\frac{3}{4}$ " bolts and  $\frac{5}{16}$ " nylock nuts.



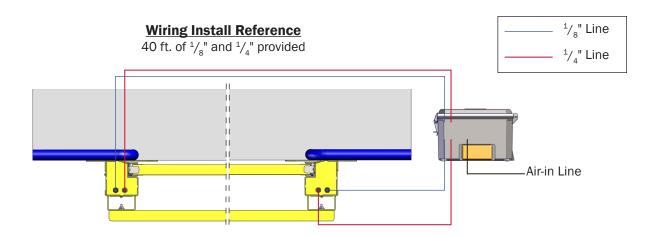
**STEP 9.** Fasten crossbars to columns using supplied  $^{5}/_{16}$ " x 1" bolts and  $^{5}/_{16}$ " nylock nuts, and washers.



**STEP 10.** Field mount control panel and push buttons.

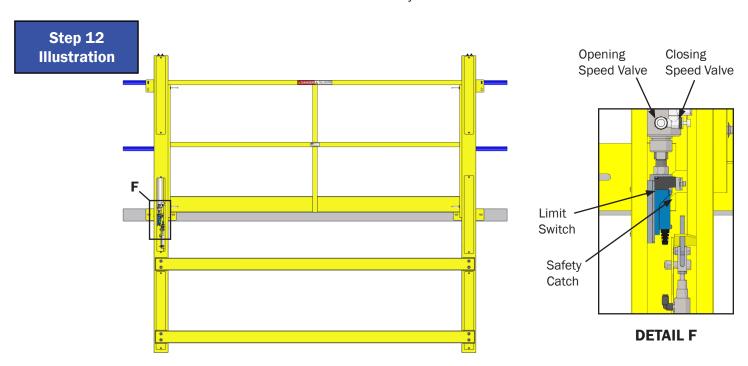
a. Refer to Wiring Install Reference for correct electrical wiring routes.

**NOTICE** Wiring services <u>NOT</u> provided by PS Safety Access.



- **STEP 11.** Turn up air pressure on regulator in control panel.
  - a. Starting at 20 psi; add pressure depending on gate size and desired speed.
- **STEP 12.** Install limit switch into drive column.
  - a. Adjust so that the limit bar comes into contact with gate arm on bottom of gate as it closes.

**NOTICE** Limit Switch can be installed in either column assembly.



**STEP 13.** Adjust cylinder bleeder valves in unison to control gate closing/opening speeds.

- a. Closing: gate moving upward.
- b. Opening: gate moving downward.

**CRITICAL** Ensure consistent adjustment between cylinders to ensure even gate movement.

## **Replacement Parts List**

## IX. Replacement Parts List

- A. This replacement parts list is for all SafeMezz® Downward Gate Models.
- B. Parts diagram is located on Page 10.
- \*Part not shown in diagrams.
- ~Part numbers 1.1 1.27 are shipped installed within each left and right column assembly.

Finish Options					
PCY Powder Coat Safety Yellow					

TO ORDER PARTS CONTACT PS SAFETY ACCESS AT 877.446.1519 or 4psinfo@psindustries.com

Replacement Parts List						
ITEM #	DESCRIPTION	QTY	72" X 97" 96" X 97'			
1~	MGD;LEFT COLUMN ASM	1	513532			
1.1	PNEU;CYLINDER 2X44 AMERICAN-SS	1	511263			
1.2	WASHER;NYLON,FLAT, .406X1X.062	2	501955			
1.3	BOLT;HEX3/8"16X1 1/2GR8ZN	1	500393			
1.4	PNEU;EXHAUST MUFFLER 1/4 NPT	1	509031			
1.5	MGV;PNEU CYUL CNCT END 1/2-SS	1	511	067		
1.6	PNEU;DUALSPEEDCONTRL 1/4NPT	1	504	054		
1.7	CYLINDER;SINGLE ACTING SPRING	1	509	594		
1.8	DWA;SNGL ACT SPRING ADAPTER	1	512	131		
1.9	MGD;LIMIT SWITCH BRKT	1	513	543		
1.10	WASHER;FLAT 1/4"SS	5	508	032		
1.11	MGD;SPR CYL LATCH PLATE	1	513	544		
1.12	SCREW;SHOULDER3/8"X3/4 SS	1	502	861		
1.13	NUT;NYLOCK JAM 1/4"20 SS	1	503	200		
1.14	BOLT;HEX1/4"20X3/4SS	1	507	197		
1.15	NUT;NYLOCK 5/16"18SS	1	508	995		
1.16	PNEU;ELBOW 1/8 NPT 1/8 TUBE	1	501287			
1.17	BOLT;HEX1/4"20X1 1/4GR5ZN	1	502647			
1.18	NUT;NYLOCK 1/4" ZN	1	501113			
1.19	MGD;COL BOTTOM STOP ASM	1	513545			
1.20	PNEU;BULKHEAD UNION 1/4 TUBE	1	501	274		
1.21	PNEU;BULKHEADUNION 1/8 TUBE	1	501	275		
1.22	SWITCH;LIMIT COMPACT SPDT	1	513	079		
1.23	MGV;TRACK STOP ASSY-SS	2	510	908		
1.24	MGV;DRIVE COL ACCESS COVER PCY	3	511239			
1.25	SCREW;PANPHMACH1/4"20X1/7"SS	8	513	487		
1.26	NUT;JAM 1/4"28,SS	1	513	947		
1.27*	MGD;DRIVE COLUMN TUBING	1	MGD-C	OLTUB		
2 ~	MGD;RIGHT COLUMN ASM	1	513	547		
3	MGD;GATE ASSEMBLY	1	513553	513557		
3.1	MGD;GATE STRUCTURE PCY	1	513554	513558		
3.2	ROLLER;2" NYLON, 11-BALL	4	513	044		
3.3*	NAMEPLATE;ALUM., SERIAL # (UN	1	503057			
3.4	DECAL;MARKETING SAFETY ACCESS	1	514730			
3.5	PUSHNUT 7/16" DIA. X 7/8" ZN	4	513576			
3.6	DECAL;LDSG, SG, & MG DANGER	2	513488			
4	MGD;CROSSBAR PCY	2	513560 513562			
5	BOLT;HEX5/16"18X3/4GR5ZN	2	500429			
6	NUT;NYLOCK 5/16"18 ZN	2	501126			
7	WASHER;FLAT 5/16"ZN	16	501949			
8	BOLT;HEX 5/16"-18X1" ZN	8	502	502704		
9	NUT;HEX 5/16"18 GR2ZN	8	508273			

## **Replacement Parts List**

## X. Replacement Parts List/Diagram

A. This diagram is for all SafeMezz® Downward Gate Models.

Replacement Parts List for Pneumatic/ Pneumatic				Rei	placement Parts List for Pneum	natic/ F	lectrical
ITEM # DESCRIPTION QTY PART #			ITEM #	DESCRIPTION	QTY	PART #	
10	MGD;PNEU/ELEC CONTROL PANEL-PC 1		513784	10	MGD;PNEU/ELEC CONTROL PANEL-PC	1	513609
10.1*	MGV;TWO BUTTON PNEU/PNEU NEMA4	1	513604	10.1*	MGD;TWO BUTTON PNEU/ELEC NEMA4	1	513605
10.2*	·		513784-PNEU TUBING	10.2*	MGD;PNEU/ELEC PANEL TUBING	1	513609-PNEU TUBING
11	MGV;PNEU PUSH BUTTON ASSY PCY	2	506797	10.3*	TERMINAL;WIRE FORK SPADE #6	24	511439
12*	MGD;PNEU/PNEU TUBING KIT	1	513953	10.4*	TERMINAL;WIRE RING 12-18 WG	5	511389
	(120)			11	CONTROL TWO BUTTON NEMA 1	2	500556
	(1.21)			12*	MGD;PNEU/ELEC TUBING KIT	1	513952
				13	STROBE LIGHT; AMBER	1	501143
13 123 124 11 11 6							
1.10 DETAIL G							

**NOTICE** Part numbers 1.1 - 1.27 are shipped installed within each left and right column assembly.

**DETAIL H** 

## **Inspection and Maintenance**

## XI. Inspection and Maintenance (Minimum Annually)

**IMPORTANT!** Consult parts list before replacing fasteners, as all have specific design load requirements. Only use like items for replacement.

#### A. Gate/Frame:

- 1. Inspect components for damage and misalignment. Adjust, repair, or replace as needed, to meet original design tolerance.
- 2. Check gate for proper alignment with columns. Adjust as necessary to achieve proper alignment.

### B. Fasteners and mechanical connections

- 1. All fasteners must be in place and adjusted to their original design standard. Replace any damaged components.
- 2. Check all mounting connections, making sure they meet original design standards (refer to instructions).

#### C. Finishes

- 1. Inspect and clean finishes periodically.
- 2. Touch up repair finishes, or refinish as necessary to protect the structural integrity of the SafeMezz® Downward Gate.
- 3. The SafeMezz® Downward Gate comes with a polyester powder coat finish. Use finish materials compatible with powder coat. Follow paint manufacturers' instructions for prep and touch-up.

### D. Housekeeping

- 1. To ensure your product continues to operate and last, upon completion of proper installation, complete the following:
  - a. Clean all surfaces.
  - b. If project is ongoing, protect installed products until final completion of project.
  - c. Touch-up, repair, or replace damaged components.
- 2. Ensure the columns are clear of debris and interferences.

### E. Labels and Placards:

- 1. Inspect all labels and placards.
- 2. Replace any labels and placards which are unreadable/missing.

**CRITICAL** Periodic Inspection and Maintenance Required. Inspect at minimum annually. CORRECTED BY (Print & Sign) **CORRECTIVE ACTION** Opening Identifier/ Number: Location: **INSPECTION ITEMS**  $|\mathcal{Z}|$  Inspection and Maintenance Log **INSPECTED BY** (Print & Sign) Model Number: Serial Number: Date Installed: INSPECTED DATE Product:

## PS INDUSTRIES® INCORPORATED - LIMITED WARRANTY

Limited Warranty: Subject to the terms of this Limited Warranty, PS Industries® Incorporated warrants to the original user or consumer (the "Owner") of a PS Industries product (the "Product") that, for a period of one (1) year from date of shipment, the Product will be free from defects in material and workmanship under normal use and service, and provided the Product is installed, operated and maintained in accordance with instructions supplied by PS Industries. The terms and limitations of this Limited Warranty apply to all repaired or replacement Products for a term equal to the balance of the warranty remaining on the Product that was repaired or replaced as of the date of such repair or replacement. Register online at: www.psindustries.com/contact/register-your-product

PS Flood Barriers™ Product Warranty Registration: For PS Flood Barriers™ Products, this Limited Warranty will only be valid if the Owner completes the Warranty Registration Form provided within thirty (30) days of Product installation. To request a copy of the Warranty Registration Form, contact PS Industries Incorporated, 1150 S. 48th Street, Grand Forks, ND 58201, phone 877-446-1519, email: 4psinfo@psindustries.com. Register online at: www.psindustries.com/contact/register-your-product/ Additional Warranty Registration Forms can be downloaded at www.psfloodbarriers.com/download-center/

Warranty Exclusions: Notwithstanding anything to the contrary, this Limited Warranty does not cover any of the following:

- 1. Normal wear and tear (including, but not limited to, normal wear and tear to gaskets and weather seals); damage or accidents resulting from freight damage, from failure to follow precautionary safety measures, or applied paint failure; abuse, misuse or unauthorized modification of the Product; misapplication; improper installation; or any defects, damage or other harm that is not the result of the acts or omissions of PS Industries.
- 2. Cost of field labor or other charges incurred by Owner in removing and/or re-affixing the Product or any part or component thereof.
- 3. Transportation costs.

Unauthorized modification of or to the Product voids this Limited Warranty. Authorized modifications, received in writing from PS Industries, as long as the modification is accomplished in strict accordance with PS Industries' instructions, does not void warranty. To request product modifications contact PS Industries, 1150 S. 48th Street, Grand Forks, ND 58201, phone 877-446-1519, email: 4psinfo@psindustries.com.

Claim Procedure: To make a claim under this Limited Warranty, the claim must be received by PS Industries before the expiration of the above stated Limited Warranty period together with proof of purchase. Contact PS Industries at the address shown below.

PS Industries Incorporated Toll Free: 877-446-1519
Attention: Warranty Phone: 701-746-4519
1150 S. 48th Street Fax: 701-746-8340

Grand Forks, ND 58201 E-mail: 4psinfo@psindustries.com

An authorized PS Industries representative must be given a reasonable opportunity to inspect and investigate the alleged Product defect prior to any work being done that affects the Product or its installation. PS Industries reserves the right to charge reasonable amounts for travel and labor associated with investigation of claims. PS Industries may also require photographs of the alleged Product defect or return of the Product or part to a designated PS Industries location, freight prepaid. A return goods authorization must be received prior to the return of the Product or part. Please contact PS Industries to determine the designated location for return and to obtain the return material authorization.

**Exclusive Remedy:** In the event of a warranty claim that PS Industries determines to be covered by this Limited Warranty, PS Industries will replace or repair, at PS Industries' discretion, the Product or any part of the Product found to be defective.

Disclaimers: The above warranty and remedy is the sole express warranty and remedy given by PS Industries on its Product. No warranties or representations at any time made by any representative from PS Industries shall vary or expand the provisions hereof. TO THE EXTENT PERMITTED BY LAW, ALL EXPRESS AND IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT) OTHER THAN THE EXPRESS LIMITED WARRANTY SET FORTH ABOVE ARE EXPRESSLY DISCLAIMED. UPON THE EXPIRATION OF THE ABOVE STATED LIMITED WARRANTY PERIOD, ANY AND ALL APPLICABLE IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT, ARE DISCLAIMED. SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO OWNER.

LIABILITY LIMITATION: In no event will PS Industries' liability to Owner or any other person or entity exceed the price paid to PS Industries for the defective Product. IN NO EVENT SHALL PS INDUSTRIES BE LIABLE TO OWNER OR ANY OTHER PERSON OR ENTITY FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT OR SPECIAL DAMAGES OF ANY DESCRIPTION, WHETHER ARISING OUT OF WARRANTY (INCLUDING ANY IMPLIED WARRANTIES) OR ANY OTHER CONTRACT, STRICT LIABILITY, NEGLIGENCE OR OTHER TORT, OR OTHERWISE, INCLUDING ARISING FROM INSPECTION OR REMEDY DELAYS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION AND EXCLUSION MAY NOT APPLY TO OWNER.

THIS WARRANTY GIVES OWNER SPECIFIC LEGAL RIGHTS AND OWNER MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

Rev. 102119









## 877.446.1519

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Product Registration: psindustries.com/contact/register-your-product