

## EXPANDABLE DOOR INSTALLATION INSTRUCTIONS

Pinch

Pinch

#### CAUTION: READ THE WARNING BELOW BEFORE INSTALLATION.

1. This product requires caution while installing and during its total operational life. 2. This product is heavy and requires two people to lift and install on your home or business. 3. Pinch points are indicated in the instructions by this symbol.

Pinch Children should not be allowed to play with the door and should be made aware of the pinch points by the owner. Failure to properly instruct the user of this product could result in the loss of a finger or other injury. 4. Do not operate the storm door without closer(s) installed and adjusted to prevent door slamming. Safety chains must be installed and functional to insure safe operation. 5. Eye protection must be used during the installation to prevent damage from flying particles. 6. Do not modify or alter the installation and specified use of this product. 7. Read the complete installation instructions before proceeding with installation.

NOTE: Larson Manufacturing Company is not responsible for accidents and injury resulting from the use or installation of this product.

Congratulations! You have just purchased a Larson Wood Core storm door. It is a top quality product to give you many years of trouble free service on your home. You may check our literature for all of the fine features on these solid insulated doors. Please take a moment to fill out and mail in your product warranty card. Doing so ensures you years of trouble-free service. Larson offers you one of the most liberal warranties in the industry. The warranty registration number is located on the inside upper left corner of the door.

This storm door is designed to accommodate various irregular size door openings and styles of exterior door trim. The side expanders extend the full height, and the top and bottom expanders extend full width to allow adjustment in both directions. This allows a properly fitted door in a out-of-square opening. Expanders are 1 3/4" wide which allows expansion up to 2" in both directions.

Note: Do not recess your new storm door back into the existing door opening. The storm door handle would be too close to the side jamb to easily get your hand on the outside handle and open the door. Also, there needs to be adequate room between the two doors for the storm door closure mechanism. Mount the door on the exterior trim or brick molding.

#### Tools Needed-

Power Drill\*
1/16", 1/8", and 5/16" Drill Bits
Hack Saw
Pencil

Center punch (nail may be used) Pliers Tape Measure Hammer Phillips & Straight Screwdriver\*

\*Note: We recommend a cordless drill with screwdriver bit.

Assembly may require shimming to fit

Side

Expanders

**Expander and** 

Sweep

PARTS IDENTIFICATION

Top Expander

Assembly may require shimming to fit existing opening.

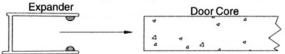
If you have any questions regarding the installation of your Larson storm door or to order replacement parts, call our Homeowner's Help Line at 1-800-352-3360. Our staff of storm door experts are on hand to answer any questions you may have. Please have the following information on hand when you call: (1) Warranty Registration Number (2) Model of door (3) Opening size of door (4) Color

## IMPORTANT: EXPANDER SAWING SUGGESTIONS:

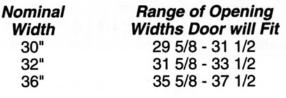
- 1. Use a square to mark all sides of the expander to guide your saw.
- 2. Use a fine-tooth metal saw and miter box.
- 3. A power table saw with fine-tooth blade will cut aluminum.
- 4. In openings that are out-of-square, the cut will have to be sawed at a slight angle to fit properly.
- 5. Slight mismatch in joints can be sealed with colored silicone caulk.

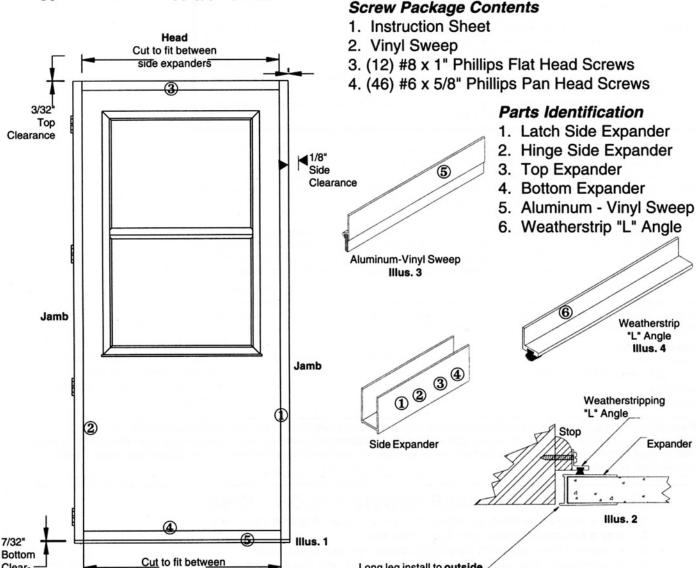
#### Section A

- Measure your door opening width from jamb to jamb and the height from head to sill.
- 2. Cut hinge expander 5/16" less than the opening height.
- 3. Using (12) #8 x 1" Phillips flat head screws, install the hinge expander on the jamb leaving 3/32" clearance at the top and 7/32" clearance at the sill. Note: It is not necessary to mortise concealed hinges into the jamb. For right-hand hinge doors, the hinge pins must be turned so that the pin head is up. Run a bead of sealant just inside of all door expander pieces before inserting solid core panel.



- 4. Position the door in the hinge expander so approximately 1/2 of the width expansion is taken up, and the door is hanging square with at least 1/2" expansion at the bottom (use shims at the bottom to facilitate this step).
  - Fasten the expander to the door with (5) #6 x 5/8" screws on the inside (evenly spaced). For best screw-holding, drill pilot holes (1/16 -1/8") through the aluminum part only. Do not drill into the wood core. The door should now hang and swing freely.
- 5. Cut the latch side expander 5/16" less than the opening height. Place the expander on the door, leaving 3/32" clearance at the top and 7/32" clearance at the bottom. The long leg of the expander should be installed to the outside. Illus. 2. Adjust the expander toward the jamb to allow 1/8" clearance.





Nominal

Height

80"

The top and bottom expanders fit between the side expanders. The joints where the expanders butt together are critical to your doors appearance and should be cut accurately. Measure the distance between the side expander for each and cut to size. The long leg of the expander should be installed to the outside. Illus. 2. Allow 3/32" clearance between the top expander and the house door frame. Illus. 1.

side expanders

Clear-

ance

- Allow 7/32" clearance between the bottom expander and the threshold. Illus. 1.
- 7. Drill pilot holes (1/16" 1/8"). Secure all expanders to the door on the inside with (16) #6 x 5/8" Phillips pan head screws - five at each side, three at the top and bottom (evenly spaced).
- Cut aluminum sweep channel to the door width. Insert vinyl sweep into the channel and crimp each end of the channel to hold the vinyl sweep in place. Install it on the outside of the bottom expander with the vinyl just touching the sill and fasten with (5) #6 x 5/8" Phillips pan head screws. Illus. 3.

Long leg install to outside

Range of Opening

Heights Door will Fit

79 15/16 - 81 3/4

Cut to size and install the weatherstripping angle along the inside jambs and head, adjusting the weatherstrip so the door is properly sealed. Secure in place with (20) evenly spaced #6 x 5/8" Phillips pan head screws - (8) at each side, (4) at head. Illus. 4 and 2.

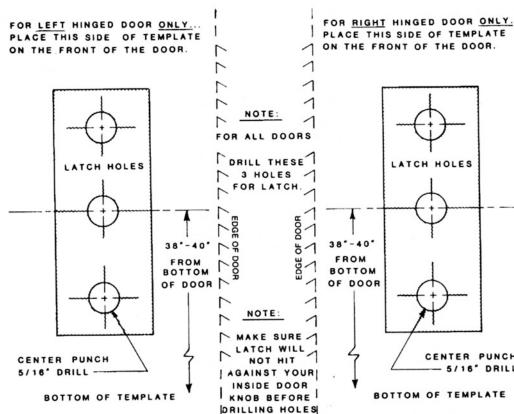
## Section B) Drill Latch Holes

You are now ready to drill the three holes for the latch. We recommend you position your latch 38-40 inches from the bottom of the door. Once you have measured for your latch height position, detach and fold the provided latch-hole template along the dotted lines. Center the middle hole over your height position mark. Tape the template to the door at your mark.

NOTE: BEFORE drilling holes, make sure the storm door latch will not hit against your inside door knob. (Move up or down to adjust.)

Using the enclosed template as your guide, center punch and drill the three holes for the latch with a 5/16" drill bit.

## FOLD ALONG THE DASHED LINES PLACE ALONG EDGE OF DOOR ON LATCH SIDE

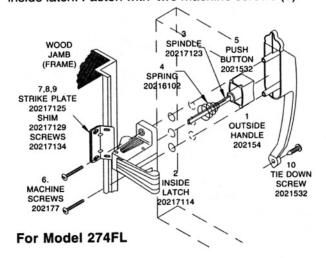


## Section C) — Install Latch Hardware

## LIFE-CORE PUSH BUTTON LATCH

### **Latch Installation**

- 1. Assemble spindle (3), spring (4), and button (5) into outside handle (1) as shown.
- Insert assembly through drilled holes from outside the door. Position inside latch (2) over holes from outside the door guiding end of spindle into rectangular slot in inside latch. Fasten with two machine screws (6).



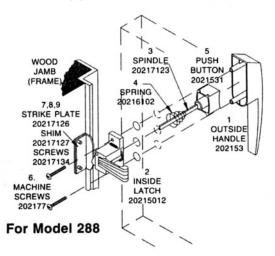
## **VALUE-CORE PUSH BUTTON LATCH**

CAUTION: DO NOT OVERTIGHTEN AS THIS MAY CAUSE THE HANDLE TO BIND.

Using tie down screw (10), fasten lower portion of outside handle (1) to door.

3. Mount strike plate (7) on wood jamb to firmly engage latch bolt with two #6 x 1-1/4" screws (8).

**Note**: Strike plate can be mounted 2 ways for different height requirements (to engage latch bolt). Also, the enclosed shim (9) can be used under the strike.

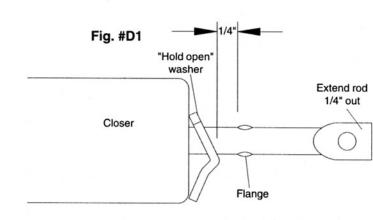


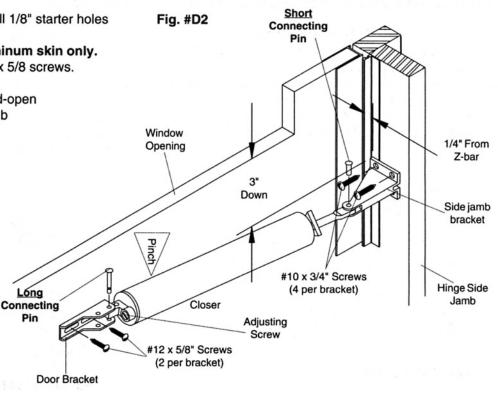
## Section D) — Closer Installation

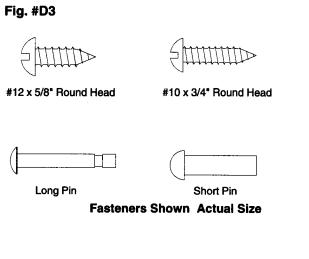
NOTE: BE SURE DOOR OPENS AND CLOSES FREELY BEFORE INSTALLING THE CLOSER.

#### INSTALL DOOR CLOSER

- Slide hold-open washer onto closer rod as shown. Pull rod out of closer 1/4" (insert small screwdriver in rod hole to provide 'pulling grip'). Position washer behind flanges and against the closer. Remove screwdriver. This will give proper tension for installation. (Do not change until installation is complete.) See Fig #D1.
- Attach front hole of closer to door bracket (<u>long</u> connecting pin) and to side jamb bracket (<u>short</u> connecting pin-See Fig #D3) with open side of jamb bracket toward storm door. (See arrow on bracket.) Close and latch door.
- 3. Hold closer assembly level 3" below the door window and the jamb bracket 1/4" back from the Z-bar. Mark jamb bracket holes and two holes in door bracket. (If more latching force is desired, jamb bracket may be moved up to 1" away from the door. Note: Moving the jamb bracket further from door nominally reduces door opening).
- Attach jamb bracket to jamb with #10 x 3/4" screws, see Fig #D3.
- Close and latch the door. Drill 1/8" starter holes for the door bracket.
   CAUTION: drill through aluminum skin only.
   Fasten jamb bracket with #12 x 5/8 screws.
- Open door. Turn and slide hold-open washer over flange toward jamb bracket on closer.
   Adjust door closing speed by turning adjusting screw on closer.



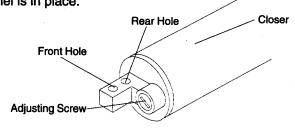




#### **CONTROLLED LATCHING POWER FEATURE**

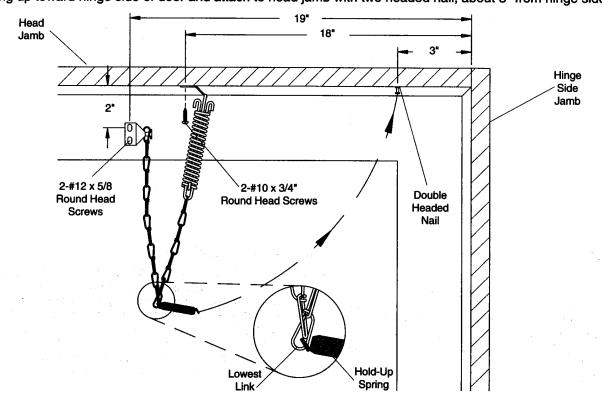
Installed as directed, with the door bracket attached to the front hole of the door closer, the bypass valve built into this closer will accelerate the closing speed of the door in the last few inches of travel. This attachment position is recommended when the glass storm panel is in place.

If a smoother, more quiet closing action is desired, hold door open about 8" with hold-open washer, remove long connecting pin from door bracket and relocate in closer tube REAR hole. This position is normally used when the screen panel is in place.



## Section E)-Wind Chain Mounting

- Attach bracket on SPRING END to head jamb 18" from hinge side and 3" from the front edge of the door frame.
   NOTE: Mount this bracket at approximately 45 degrees on head jamb. Use 2 #10 x 3/4" round head screws.
- 2. Mount bracket on CHAIN END on inside door surface 2" from the top of door and 19" from hinge edge of door in a horizontal position. Use 2-#12 x 5/8" round head screws only. This allows 90 degrees opening of door. If greater opening is desired, mount each bracket slightly closer to hinge edge of door. To allow full opening or removal of door, merely detach chain from bracket.
- 3. To attach holdup spring, close door and hook spring to lowest hanging link by twisting the flared -out spring coil end into the chain.
- 4. Swing up toward hinge side of door and attach to head jamb with two headed nail, about 3" from hinge side jamb.



# Section F) Glass And Screen Sash Removal-for Full Lite & Self-Storing models.

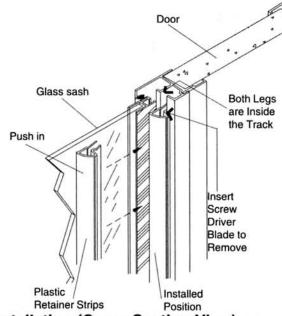
<u>Full-Lite Version</u>: Your door is shipped with the screen and glass inserts in the window opening. After the door is installed <u>either</u> the screen or glass is held in place by plastic retainer strips.

(The screen pulls are for shipping purposes only.)

Retainer strips are taped to door.

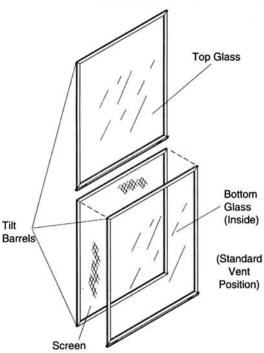
To install the retainers, start one end of the retainer into the track by pushing in as shown. Continue to snap it into place from that end.

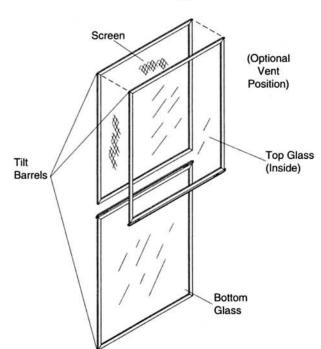
To remove the retainers, use a straight blade screwdriver to rotate outward.



Retainer Strip Installation (Cross Section View)

## Glass and Screen Sash Removal. Self-Storing Models





#### Standard Ventilation-

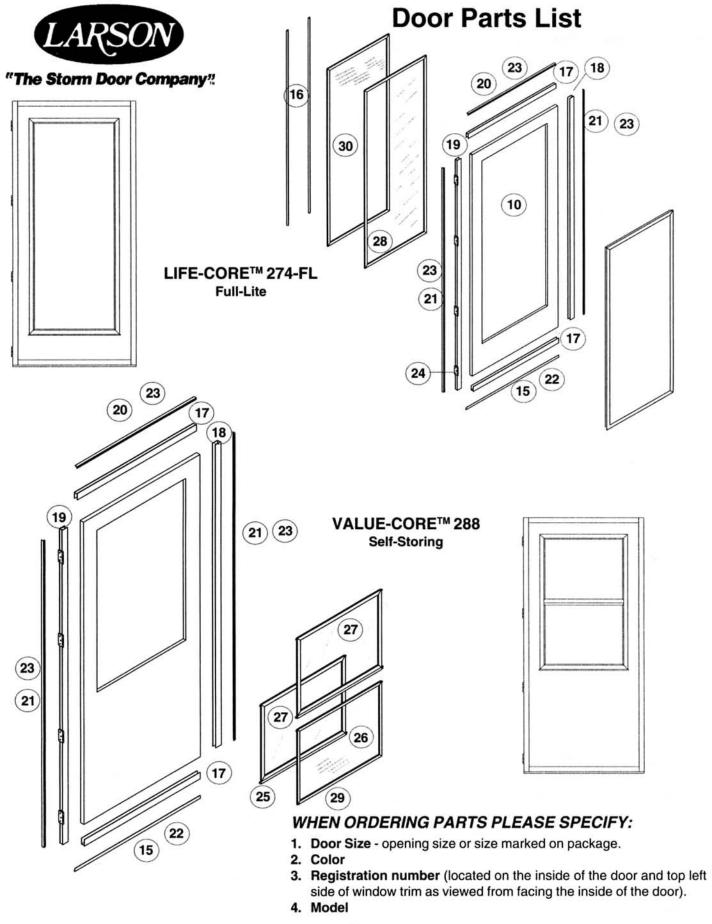
- Remove bottom glass sash from door.
- Remove screen by lifting up top glass sash which rests on top of the screen and pulling out on top of screen. Also, you can disengage the top glass finger pulls and pull out both the glass and screen at the same time.
- 3. Remove top glass sash.

## Optional Top Ventilation

## (NOTE the position of the tilt barrels shown above.)

NOTE: When the screen sash is in the top ventilation position your door is more susceptible to wind driven rain getting to the inside of the door.

- Place a glass sash (both glass sashes are identical) in the outer track, upside down and lower it so that it rests on the sill.
- Position the screen above this panel, also in the outer track, <u>upside</u> <u>down</u>. The screen corners, with the tilt barrels, will be on the top.
- 3. Place the other glass sash in its original position in the inner track.



Item :	# Part Description	Part #	Qty	Item #	Part Description	Part #	Qty
1	Hold Open Washer	2021591	1	18	Jamb Expander	228x34	1
2	Door Bracket	2021714	1	19	Hinge Jamb Expander	228x34	1
3	#10 x 3/4" Screws (Painted)	20217147	6	20	Weather Strip "L" Head	228x35	1
4	#12 x 5/8" Screws (Painted)	20217146	4	21	Weather Strip "L" Jambs	228x35	2
5	Jamb Bracket	2021716	1	22	Sweep Channel	228x36	1
6	Short Connecting Pin	20217149	1	23	Weatherstripping - Wool Pile	202301	14 ft.
7	Long Connecting Pin	20217142	1	24	Hinges	202107X	4
8	#6x 5/8" Phil. Pan Head (Painted)	202509X	46	25	Glass Sash Latches-Left	201108	2
9	Double Headed Nail	20217148	1	26	Glass Sash Latches-Right	201109	2
10	#8 x 1" Phillips Flat Head (Zinc)	20217111	12	27	Glass Sashes: Self Storing		
11	Hold-Up Spring	20217143	1		Model 288	128X934	2
12	Safety Chain Assembly	2021715	1	28	Glass Sashes: Full		
13	#150 Closer (LIFE-CORE)	202158	1		Model 274	124X934	1
14	#920 Closer (VALUE-CORE)	202159	1	29	Screen Sashes: Self-Storing		
15	Expander Sweep Plastic	202313	1		Model 288	128X944	1
16	Plastic Sash Retainers	202312X	2	30	Screen Sashes: Full		
17	Head and Sill Expanders	228X34	2		Model 274	202135X	1

## **Hardware Parts List**

