



# **PAL**™ **SWING-AWAY AND FIXED LATERAL THORACIC SUPPORTS**

## Assembly, Mounting and Operating Manual

Lateral thoracic supports are used in conjunction with other secondary supports, to help the user maintain a more upright seated position. The *VARILITE*® PAL™ (Positive Action Lateral) thoracic support is designed to fit the contours of *VARILITE* Icon™ Back Systems, Evolution Back™ Systems, and may fit other commercially available back supports.



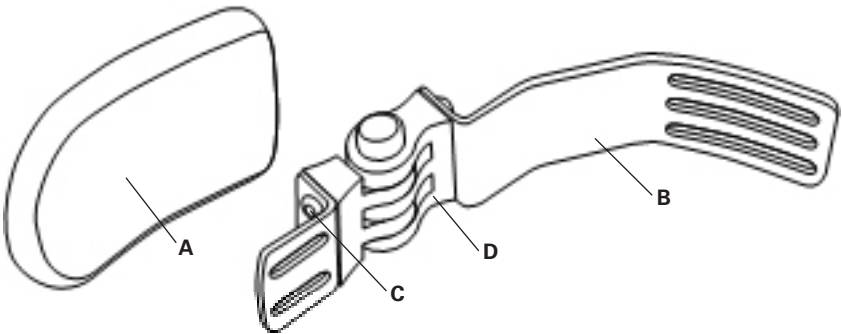
### **WARNING**

To ensure proper mounting, consult a trained medical professional. Improper mounting can negate the positive benefits of the support and may cause bodily harm.

## Thoracic Support Components

| Fig.         | Quantity* | Description                                        |
|--------------|-----------|----------------------------------------------------|
| A            | 1         | Pad                                                |
| B            | 1         | Lateral shell bracket                              |
| C            | 1         | Pad bracket                                        |
| D            | 1         | PAL™ Swing-Away Hinge                              |
| Not Pictured | 1         | Allen wrench                                       |
| Not Pictured | 16        | ¼-20 x .375 cap screws, loose                      |
| Not Pictured | 8         | Anti-rotation nuts                                 |
| Not Pictured | 2         | 5 in. (13 cm) adhesive-backed hook strip           |
| Not Pictured | 2         | 2 in. (5 cm) adhesive-backed loop square           |
| Not Pictured | 2         | ¼-20 x .75 cap screws, loose (packaged separately) |

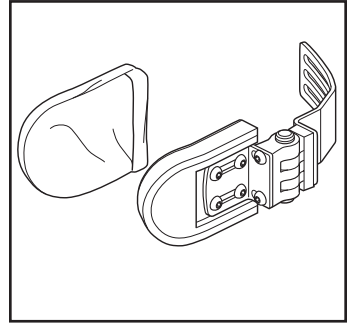
**\*Note:** VARILITE PAL™ Lateral Thoracic Supports are sold as each. Other tools required but not provided are a drill and 7/64th drill bit.



## I. Mounting the Pad

### A. For Frequent Washing

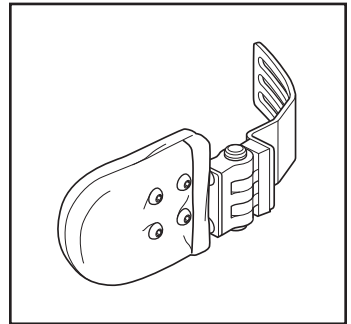
1. Remove the pad cover.
2. Determine the location of the pad bracket on the pad.
3. Drill through the pad using four (4)  $\frac{1}{4}$ -20x .375 screws.
4. Replace cover. *Fig. 1*



**Fig. 1**

### B. For Infrequent Washing

1. Drill four (4)  $\frac{1}{4}$ -20 x .375 screws through the cover and into the pre-drilled holes in the pad. *Fig. 2*

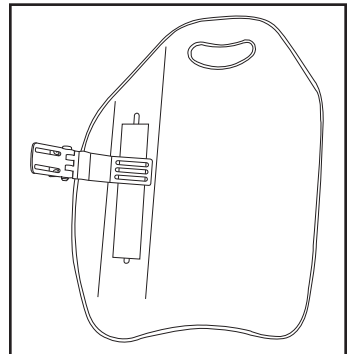


**Fig. 2**

## II. Mounting for Assessment

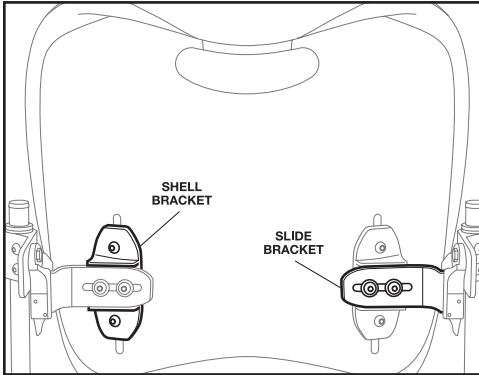
1. Adhere the 5 in. (13 cm) hook strip to the back shell.
2. Adhere the loop to the lateral shell bracket.
3. Attach lateral shell bracket to back shell.

This temporary bond will allow the clinician to assess various positions without drilling into the back shell. *Fig. 3*



**Fig. 3**

### III. Permanent Mounting



**Fig. 4**

#### A. Icon™ Back System (See Fig. 4 for components)

**Note:** If mounting to the Evolution Back™ System or other back systems, skip to section III.B.

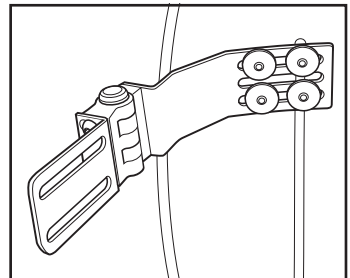
1. Identify location for lateral thoracic supports.
2. Remove adhesive hook and loop if used during assessment.
3. Place lateral shell bracket in the outermost position on the back shell.
  - a. The lateral shell bracket can overlap with one (1) anti-rotation nut of the Icon™ Back System shell bracket and be secured with one (1) ¼-20 x .75 cap screw.
  - b. Secure the lateral shell bracket with three (3) 1/4-20 x .375 cap screws.
4. Mark drill location on the back shell.

**Note:** The VARILITE PAL™ thoracic support may be mounted by drilling into the back shell, using the existing slots in the back shell, or a combination of the two. A minimum of three (3) attachment points must be used. Drilling into the back shell does not void the manufacturer's warranty.

5. Start holes using a center punch.
6. Drill holes using a 7/64" drill bit.

**Note:** The lateral shell bracket cannot be mounted between the two anti-rotation nuts of the Icon™ Back System shell bracket. Do not drill through the Icon™ Back System shell bracket.

7. Attach lateral shell bracket to the back shell by using one of the following methods:
  - a. **When mounting to the back shell**, use four (4) ¼-20 x .375 cap screws and four (4) anti-rotation nuts. Fig. 5



**Fig. 5**

### III. Permanent Mounting (cont'd)

- b. When mounting through the shell bracket, use one (1)  $\frac{1}{4}$ -20 x .75 cap screw and two (2)  $\frac{1}{4}$ -20 x .375 cap screws. Fig. 6
8. Secure and tighten cap screws with the Allen wrench.

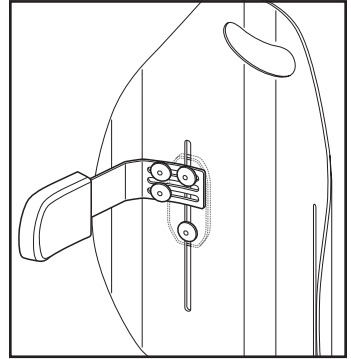


Fig. 6

**Note:** Ensure that the distance between the centers of the anti-rotation nuts measure between  $\frac{7}{8}$ " (22.5mm) minimum and  $1\text{-}1/16$ " (27mm) maximum. Fig. 7

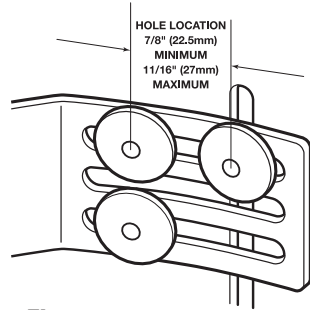
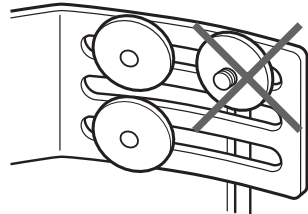


Fig. 7



## WARNING

Only use the  $\frac{1}{4}$ -20 x .75 screw when mounting the lateral shell bracket through the Icon™ Back System shell bracket! Using the  $\frac{1}{4}$ -20 x .75 screw in any other location will cause the screw to protrude and may damage the upholstery. It may also create a pressure point for the user.



### III. Permanent Mounting (cont'd)

#### B. Evolution Back™ System or Other Back Systems

1. Identify location for lateral thoracic supports.
2. Remove adhesive hook and loop if used during assessment.
3. Align the bend in the lateral shell bracket with the bend on the back shell.
4. Mark the position to drill on the back shell.

**Note:** The hole location must be 7/16" (11mm) from edge of lateral shell bracket.

5. Mount lateral shell bracket by using existing slots in the back shell or by drilling holes into back shell.

#### C. Evolution Back™ System, Alternative Method

The lateral shell bracket can be mounted in the existing slot of the Evolution Back™ System shell bracket. To mount using this configuration:

1. Identify the existing carriage bolt that secures the Evolution Back™ System shell bracket to the outside of shell.
2. Mount carriage bolt through the lateral shell bracket on the inside of the shell.
3. Mount three (3) ¼-20 x .375 cap screws through the lateral shell bracket on the inside of the shell. Fig. 8

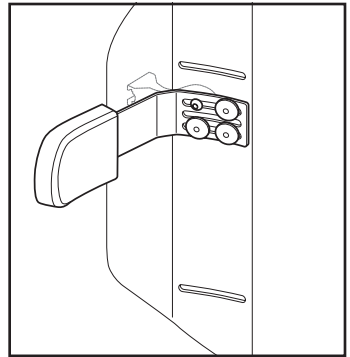


Fig. 8

### IV. Adjusting Pad Angle

1. Using the Allen wrench provided, loosen the cap screw on the underside of the PAL™ Swing-Away Hinge.
2. Adjust the pad bracket to the desired angle and tighten. Fig. 9

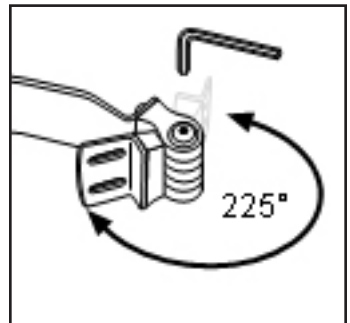
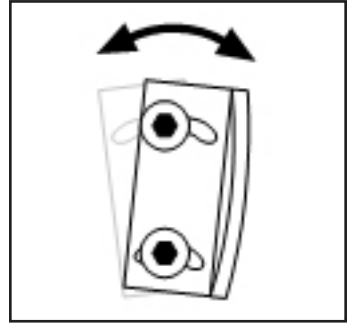


Fig. 9

## V. Adjusting Pad Rotation

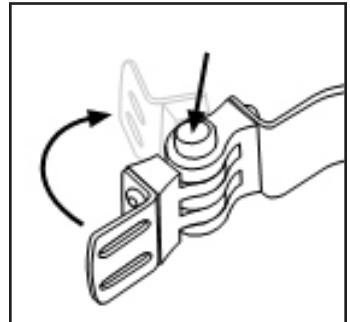
1. Using the Allen wrench provided, loosen the screws securing the pad bracket to the PAL™ Swing-Away Hinge.
2. Rotate pad to the desired angle and tighten screws. *Fig. 10*



**Fig. 10**

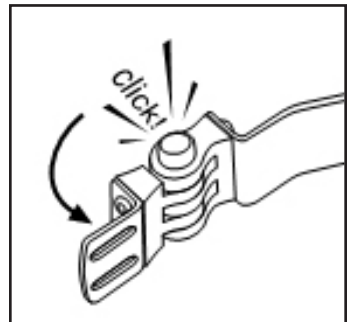
## VI. Operation

1. To initiate swing function, depress the silver button.
2. Swing the pad bracket away from the user. *Fig. 11*



**Fig. 11**

3. Pad bracket is locked into place when an auditory click is heard and the button is fully extended. *Fig. 12*



**Fig. 12**

## VII. Additional Features

1. Metal base of pad may be bent slightly for a more contoured fit.
2. The VARILITE PAL™ lateral thoracic support may be mounted with the push button facing up or down.

**Note:** In general, the push button will face up. However, in some clinical situations the reverse may be appropriate.

## VIII. Maintenance

1. Hand wash or machine wash pad covers in cold water on gentle cycle.
2. Hang dry.
3. Clean metal parts with a soft cloth and isopropyl alcohol.

**Note:** NEVER oil the PAL™ Swing-Away Hinge. Do not use soap-based products.

## Warranty

The VARILITE LIMITED WARRANTY is available at [www.varilite.com](http://www.varilite.com), or from Customer Service at (800) 827-4548, or by e-mail at [info@varilite.com](mailto:info@varilite.com).



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