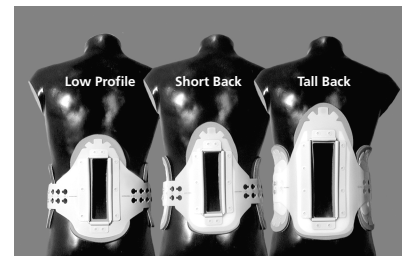




The Aspen® LSO is used to support and stabilize the lumbar-sacral portion of the spine for both non-operative and post-operative purposes.

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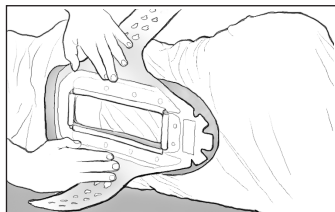
READ INSTRUCTIONS BEFORE USE. Proper training in the use of this device should take place before it is applied. These directions are guidelines only and are not offered as medical recommendations.



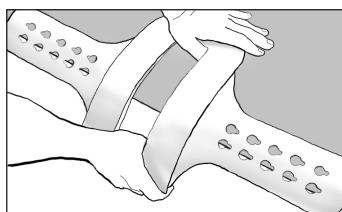
Aspen® LSO Catalog Numbers

DESCRIPTION	GIRTH	BACK HT.	CAT. NO.
Low Profile(13)/Small Sides	29" - 42"	13"	990020
Low Profile(13)/Large Sides	34" - 47"	13"	990021
Short(13)/Small Sides	26" - 39"	13"	990040
Short(13)/Large Sides	36" - 49"	13"	990041
Tall(16)/Small Sides	32" - 47"	16"	990060
Tall(16)/Large Sides	44" - 59"	16"	990061
Accessories			
Filler Pads		Tall	990075
Cold Therapy System		Short	990071
			990073

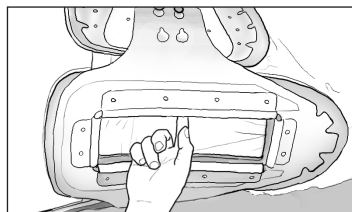
SIZE SELECTION AND LORDOSIS ADJUSTMENT



1. Select the appropriate height LSO back panel for the degree of motion restriction desired. Match the patient's girth to the appropriate side panels. Position the patient to allow access to their back. While holding the back panel in position, determine the location and amount of curvature needed.

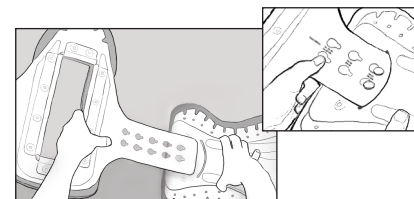


2. Using the Aspen Bending Tool or the edge of a table or other rigid structure, bend both of the aluminum rods in the back panel, as necessary, to fit the patient.



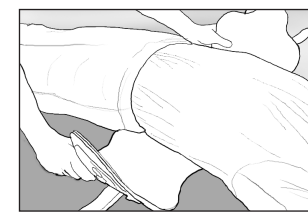
3. Test the bend by holding the back panel in place and feeling along the edges of the cut-out to ensure that contact is maintained throughout. If necessary, adjust the curve further. It may also be necessary to introduce a second reverse curve above the lumbar curve to keep the back panel in contact with the patient's back.

ASSEMBLY



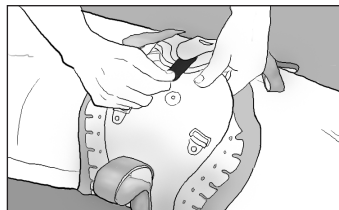
4. To determine the correct slot setting, measure the patient's circumference at the waist and lower rib margin and average the two numbers. Attach the side panels to the properly curved back panel by sliding the ends of the back panel into the curved slots so the end is "hidden" under the side panels. Using the average measurement, seat the rivets in the appropriate SureSlot™ openings and pull firmly until they snap into place.

POSITIONING



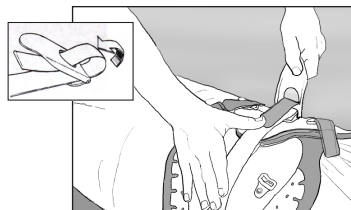
5. With the brace sized and assembled, roll the patient (or use the appropriate handling, depending on the injury) to a supine position and position them so that the back panel is centered and properly located. If the patient is ambulatory, you may ask them to hold the brace in place while you attach and tighten the brace.

CLOSURE



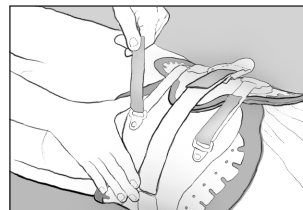
6. Attach the black Velcro Start Tab to the Velcro dot on the opposite side panel. If it does not reach, the brace has been set too small and should be removed and lengthened one slot on each side. (See step 3.) If the end of the black strap extends significantly beyond the dot, the brace should be readjusted to one smaller setting.

TIGHTENING



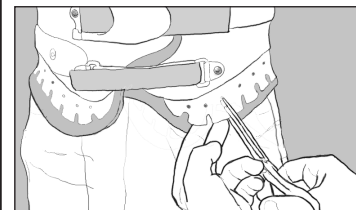
7. With the LeverLatch™ in the position shown, lace the 1-1/2" wide center strap through it. Start by lacing the strap through the opening closest to the patient and then come back through the triangular-like opening. This will allow the hook Velcro on the end of the strap to engage the loop Velcro of the strap. Securely attach the loop Velcro and push down as you move the LeverLatch™ to the patient's right to tighten the brace.

Caution: Do not tighten the brace so that it interferes with normal breathing.



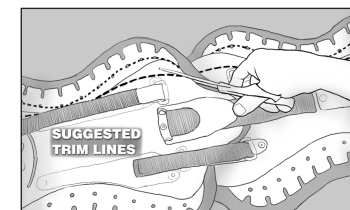
8. Attach and tighten the upper and lower straps to take up the slack. If more tightening is desired, release the lever latch, re-attach the Velcro strap, and tighten the LeverLatch™ further. Again take up any slack with the upper and lower straps to secure the brace. Should the brace "bottom out" before the desired tightness is achieved, the brace must be readjusted using the next smaller setting.

TRIMMING



9. With the brace properly tightened, ask the patient if any of the edges are uncomfortable. Cutting from the bottom of a flex slot to the adjacent hole will increase the flexibility in a given area, reducing pressure and improving comfort. If desirable, the CushionFlex Tabs™ can be shortened as well, but lengthening the slots is preferable. The lower flex tabs should flex up when the patient is seated.

CUSTOMIZATION



10. For women with large busts, it may be necessary to trim not only the CushionFlex Tabs™ but also the outer support layer. To accomplish this adjustment, the upper 1" strap and corresponding chafe tab can be relocated 1" lower. Drill out the aluminum rivets that hold the strap and chafe tab and re-rivet them in the pre-drilled holes (hidden under the loop Velcro). Then trim the CushionFlex Tabs™ and breathable foam pad accordingly.

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- (b) The product is altered;
- (c) Any parts not supplied by Aspen Medical Products are inserted into the product; or

(d) The product is not used in accordance with the Aspen Medical Products, Instructions for Use.

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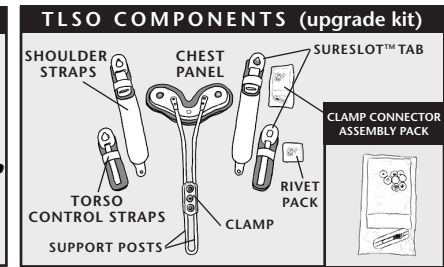
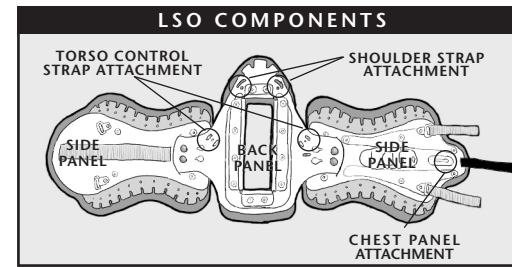
TL0009 D REV. 11/04



The Aspen® TLSO is used to support and stabilize the thoracic-lumbar-sacral portion of the spine for both non-operative and post-operative purposes.

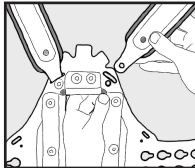
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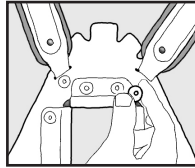


UPGRADE KIT: INSTALLATION OF COMPONENTS

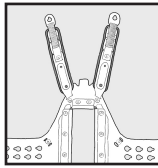
SHOULDER STRAP



1. With back panel laying on a table, insert strap through slot from above.

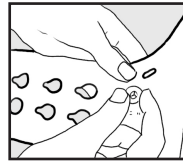


2. From underneath, install male portion of rivet through hole. Align female portion of rivet and press firmly until it snaps into place.

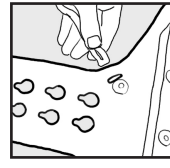


3. Completed assembly.

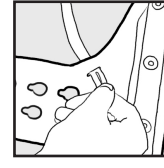
TORSO CONTROL STRAP



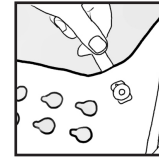
1. From the underside surface, insert male portion of rivet through hole below slot. Align female portion and press until it snaps into place.



2. Lace strap through slot from the inside as shown above.

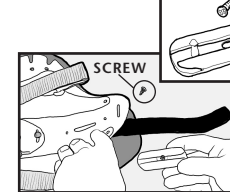


3. Pull button hole located in the end of the strap over plastic rivet and button it on.

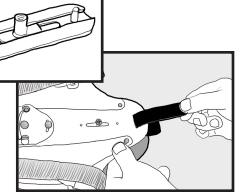


4. Pull strap tight to secure.

CLAMP CONNECTOR

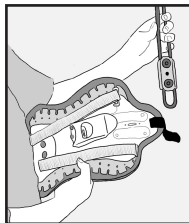


1. Remove screw from clamp connector and set aside. Unlace start tab and position clamp connector so threaded sleeve comes through slot.

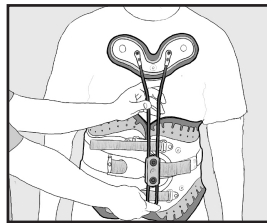


2. Align plastic rivets with the two small holes. Press until they snap in place. Relace start tab.

1. PREPARATION

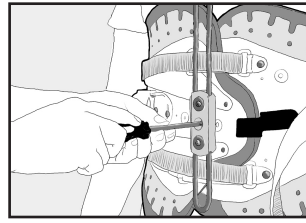


1. Remove clamp assembly and posts by removing the single screw in the middle and set aside. Apply and tighten LSO as described in the LSO Directions for Use (see reverse).

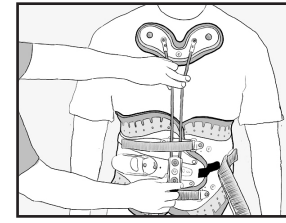


2. With the LSO properly fit, hold posts and chest panel in position on patient. Determine what adjustments are required, if any, and bend support posts as needed.

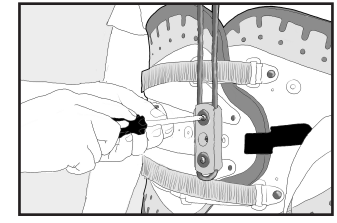
2. CHEST PANEL ATTACHMENT



3. With upper and lower closure straps affixed, unlatch center strap, attach post clamp and slide it laterally until it is positioned in the patient's mid-line. When chest panel is properly oriented, replace and tighten central screw securely.

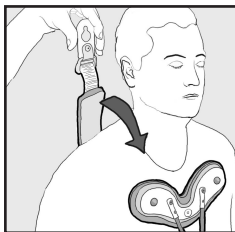


4. Adjust height of chest panel so that it is approximately 1" below sternal notch. If posts extend below clamp as far as the CushionFlex Tabs™, it may be desirable to bend them slightly outward.

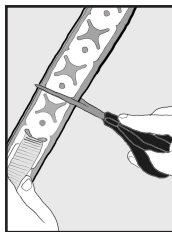


5. To lock in height of chest panel, tighten upper and lower screws. Lace central strap through LeverLatch™ and secure. Finish by repositioning upper and lower closure straps so they lie over support posts.

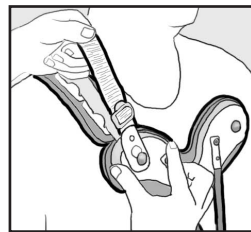
3. SHOULDER STRAP ADJUSTMENT



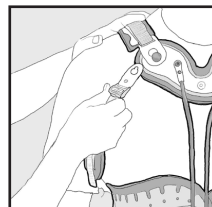
6. Grasp SureSlot™ connecting tab and pull each shoulder strap out to its full length. Hold in position to determine appropriate length and, if necessary, trim plastic and foam pad with scissors.



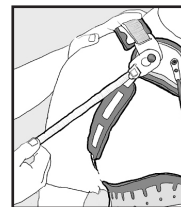
7. Attach straps to the aluminum rivets using the SureSlot™ connecting tabs, and tighten the straps until snug. To loosen the strap pull up on the upper lock tab.



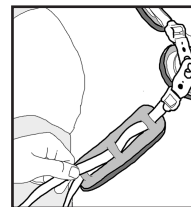
4. TORSO CONTROL STRAP



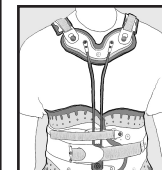
8. Torso control straps are provided for additional limitation of rotation. Attach to back panel as shown in Upgrade Kit: Installation of Components. Unfold and connect torso control straps to the same rivets on chest panel that shoulder straps attach to. Adjust webbing to the desired tightness.



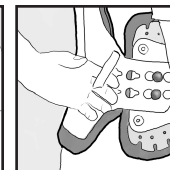
9. Extra strap can be laced through foam. Trim excess webbing, if necessary, and heat seal to prevent fraying.



5. STEP DOWN OPTIONS



1. If or when torso control straps are not needed, disconnect them where they attach to back panel (it may be desirable to cut off the plastic rivets that the straps connect to as well).



2. Some patients may progress to the point where eliminating the shoulder straps may also be desirable. Disconnect them from chest panel and cut off plastic rivets to connect them from back panel.

