Make Your Own Dodger

PDF Instructions #100774

Sailrite

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Sailrite Dodger

OVERVIEW

Dodgers are a great way to provide shelter from sun, wind, rain, and spray while sailing. Because every boat is a little different, dodgers tend to be custom projects to ensure proper clearance, protection, and seal along the forward edge. As a result, dodgers can be very expensive, but Sailrite offers several customizable dodger kits that make building a dodger easy and affordable.

Sailrite dodger kits feature a metal frame that can be folded out of the way when not in use, a long-lasting Sunbrella fabric cover material, and top-quality Strataglass window material. The design features zippered tubing sleeves for easy removal and storage and a tail along the aft edge to prevent water from wicking back under the cover and to act as an attachment point for an extension between the dodger and a bimini.

Making your own dodger allows for greater customization and design flexibility. Before beginning this project, take a few moments to decide what features are most important and then design your dodger to meet those needs.

- Dry companionway in all wind and sea conditions
- Easy access to the cabin
- Protection from sea and spray in the cockpit
- Maximum wind protection
- No interference with the main sheet
- No interference with helmsman's visibility
- Compact and convenient storage when not in use
- Durable enough to withstand body weight
- Nice appearance
- Easy access to foredeck around the sides

Most of these parameters will be established during frame assembly and installation. If it becomes apparent that the dodger will not be able to fulfill one of your requirements, changes can be easily be made at this stage without much additional labor or expense.

Let's begin!

Completed Sailrite Dodger Kit

Step 1:

PREPARING FOR THE FRAME

The first step is to prepare for the frame by locating and securing the deck mounting plates. There are four possible locations for these plates. Depending on the boat and type of protection desired, one location may make more sense than the others:

- **Cabin top** - Good if the boat is flush decked or if only the companionway hatch requires protection
- **Cabin sides** - Appropriate if there is enough deck room to pass forward
- **Cockpit coaming sides** - Good for very wide dodgers but may make movement forward difficult
- **Cockpit coaming top** - Offers more protection to the helmsman while still giving deck clearance to the sides

When selecting a location, make sure the dodger can be folded over the forward edge of the companionway so entrance into the boat is not restricted. In general, the further aft the plates are mounted, the longer the bows must be to accommodate the companionway. Also note that the dodger can become large enough to interfere with the mainsheet. If the mainsheet is not a problem, remember the maximum spread between any two bows (once assembled) is about 40 inches.

Sailrite frame kits include Universal Deck Hinges which feature a pivoting hinge to allow for the many different angles of decks, coamings, and even vertical surfaces (Figure 1). As a result, this mount can be secured to any flat surface. Sailrite kits include #10 x 1" oval headed sheet metal screws to secure the mount, even without access to the inside surface. Drill pilot holes the size of the screw shank diameter (less the thread). If access behind the mounting location is available, use nuts and bolts for a stronger attachment.

Regardless of attachment method, make sure to carefully bed the mounts in silicone compound (Figure 2). Use silicone liberally around each hole. After screwing down the mount, let any excess silicone cure before cutting away with a razor blade.

See our video for proper bedding of deck hardware: http://www.sailrite.com/Bedding-Deck-Hardware-and-Fittings-Video.

If you are still uncertain about selecting the mounting location, see our Make Your Own Dodger DVD for a visual demonstration.

Step 2:

MEASURING THE FRAME

The dodger frame requires 2 or 3 bow assemblies (6-9 tubing sections), jaw slides, eye ends, 2 Universal Deck Hinges, and set screws. Sailrite's complete dodger kits come in pre-bent 7/8" anodized aluminum or 1" stainless steel tubing for 65", 84", or 106" widths.

Frame assembly is very straightforward and the completed frame is easy to adjust. Each bow assembly is made up of a center tube with a slight upward curve (crown) and 2 hockey stick-shaped tubes (legs) joined together with short tubing splines. The bow assemblies are combined into a final assembly using jaw slides and eye ends (**Figure 3**).

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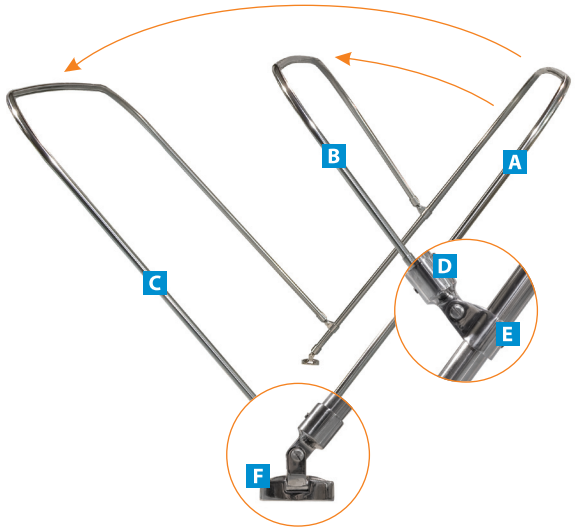

- **A** Primary bow
- **B** Intermediate bow
- **C** Secondary bow
- **D** Eye end
- **E** Jaw slide
- **F** Universal deck hinge

The frame is then mounted to the boat using 2 Universal Deck Hinges that can accommodate many different angles of deck and coamings and even vertical surfaces. All fittings are secured in place with set screws.

First, lay out all the tubing sections. Notice there are 2 crowns and 4 long legs if building a 2-bow dodger, or 3 crowns, 4 long legs, and 2 short legs for a 3-bow dodger. These sections will make one primary bow (long legs), one secondary bow (long legs), and if building a 3-bow dodger, one intermediate bow (short legs). If left uncut, each bow would span either a 65", 84", or 106" width (depending on the kit). The legs will be cut to an appropriate height and the center tubes to an appropriate width.

Once cut and assembled, the primary bow will be the longest, usually aft-most bow that supports the other bows. (These instructions assume the primary bow is aft, but there may be circumstances where it is more appropriate for the primary bow to be forward (**Figure 4**).)

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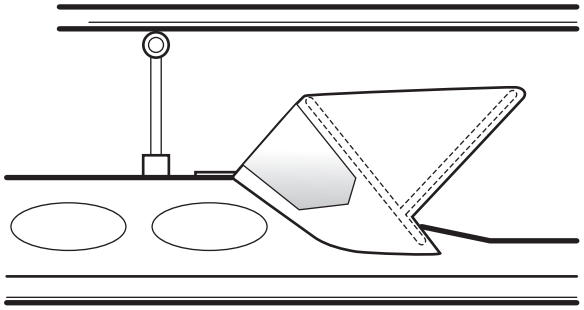

The secondary bow will be almost as long as the primary bow and is typically forward. For 3-bow dodgers, the intermediate bow will be the shortest. The secondary and intermediate bows will both attach to the primary bow with sliding jaw slides.

When the dodger is folded forward, the secondary bow (if forward) will lay underneath. The bows should nest neatly on top of one another so the frame can be compactly stowed when not in use.

MEASURING THE FRAME

Once the mounting plate location has been decided (Step 1), the frame configuration, height, and width can be determined.

Frame configuration is simply the order of the bows from back to front. Decide whether the primary bow will be the aft-most bow or the forward-most.

To determine proper **frame height**, take a long leg (hockey stick) to the boat. This leg will be used to measure the primary bow (longest length), the secondary bow (second in length), and the intermediate bow (only necessary for 3-bow dodgers).

Hold the primary bow leg at the likely mounting point for the dodger. Angle the leg aft roughly to the point where the aft edge of the dodger will be (both in reach and height) (Figure 5).

5

Place a mark on the leg at the mounting point. This position should allow clear passage for the boom and mainsheet above. Pivot or fold the bow forward on this mark to make sure it folds down roughly on top of or 2 inches in front of the open hatch. Adjust the mark as needed until the best compromise between these two constraints is met.

Place a mark on the leg 2 inches above the first mark for the primary bow leg. Angle the leg forward from that mark, as if intersecting the primary bow at a point 2 inches above the mounting plate (2" is just a good starting point and can be changed) until its height is roughly equal to the height of the primary bow (usually slightly less than 90 degrees) (Figure 6). Note the location (forward reach and height) of the forward edge of the dodger.

6

Have someone take a step back to determine whether the dodger frame will have a pleasing shape and provide the desired level of protection. If not, reposition the marks and try again.

Note that if the 2 inch guideline is increased, the length of the dodger top panels will be shorter and length of the forward dodger panel will be longer. Sailrite prefers to make the top of the forward bow slightly lower than the top of the aft bow so water will run off forward.

If measuring for an intermediate bow, place a third mark on the leg just under half way between the secondary mark and the point where the bend begins. Modify as necessary.

The forward panel of the dodger will attach to the cabin top just below the folded frame, typically right along the forward edge of a closed hatch and the aft edge of an open hatch.

To determine **frame width**, measure from one mounting bracket to the other across the boat. Make sure the jaws in each mounting bracket are vertical. If the brackets are not yet installed, measure the width of the boat at the intended mounting position and add about 1-1/2" to allow for the brackets (Figure 7).

7

This measurement does not need to be exact since it is normal to bend the bows 2" or more when fitting in order to keep them from rattling. (The bows will be oversize by a few inches when following these directions).

Step 3:

CUTTING THE FRAME

Sailrite recommends using a tubing or pipe cutter for clean cut edges. Simply tighten the cutting wheel over the tube and turn the tool around and around while slowly tightening the wheel against the tube (**Figure 8**). As many as 55 turns may be necessary if cutting stainless tubes. A hack saw can also be used, but the cut edge will not be as square or clean. Use a file along the edges to smooth away any burrs.

8

First, cut the curved center tubes. Subtract the desired frame width in inches (mounting plate to mounting plate) from 65, 84 or 106 depending on the kit. Divide the remainder by two and remove the resulting number of inches from each end of the center tubes (**Figure 9**). Cutting from each end will keep the crown in the center of the bow.

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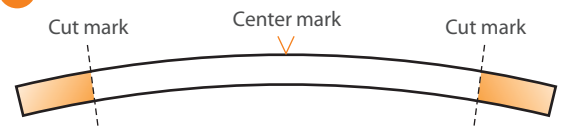

$$\frac{\text{(Maximum kit width - Measured width)}}{2} = \text{Number of inches to cut off each end of the center tubes}$$

Cut the two longest legs (hockey sticks) for the primary bow to the length of the first mark on the marked tube. Then cut the next two shortest legs for the secondary bow to the length of the second mark (roughly 2 inches above the first mark). For 3-bow frames, cut the remaining two legs for the intermediate bow at the third and shortest mark.

Tape the bow assemblies back together. Be sure the center tubing curve is upward in line with the bow assembly legs. Lock the legs in place over the splines and wrap each joint with tape to hold the position of each tube.

Step 4:

FRAME ASSEMBLY

Lay the assembled bows on a flat surface or the floor. Drill up through the bottom of the frame with a 3/16" bit through both the frame piece and spline tubing roughly 1 inch on each side of every joint (**Figure 10**).

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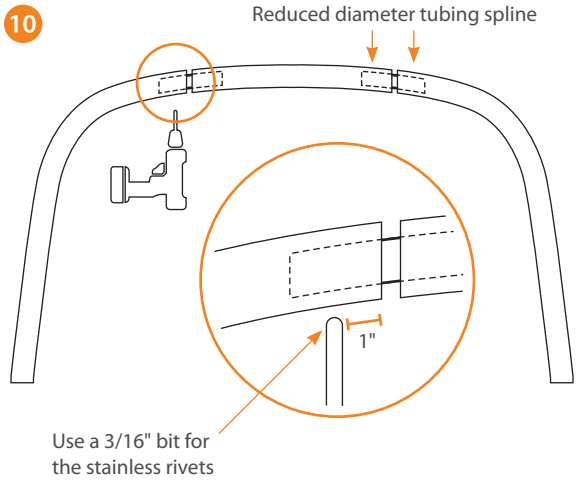

Sailrite recommends using the Drill Steady Tubing Tool to guide the drilling work (**Figure 11**). If not available, a center punch can help keep the bit from wandering. A third alternative is to use a drill press.

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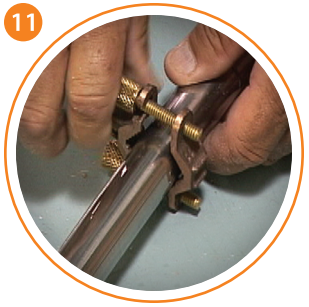

Drilling stainless steel requires a good deal of pressure and patience! A drill press speeds up the process but requires one or two helpers to keep the assembly lined up properly. If using a drill press, lay the assembly on the floor with the crown facing up and mark a small hash with a permanent marker across the bottom of each joint from tube to tube. These hash marks can be used to keep the legs straight while being drilled (**Figure 10**).

After drilling, insert the stainless steel 3/16" pop rivets (included with the kit) into each hole. Set each rivet with a pop rivet tool (not included in the kit) (**Figure 12**).

12

If a riveting tool is not available, rivets can be replaced with stainless steel machine screws on stainless tubing or self tapping screws on aluminum tubing. If using machine screws, drill appropriate size holes (the shank diameter of the screw not including the threads) and use a tap to create threads. Self tapping screws will work without using the tap in the aluminum.

Slide one (or two for 3-bow dodgers) jaw slide onto each leg of the now complete primary bow assembly. Install eye ends on the leg ends for all the bows, tightening the set screws in each. Lock the lower jaw slide on the primary bow in place with an 1/8" Allen wrench about 2 inches (or the second mark determined in Step 3) above the eye ends.

Remove the pivot screws in these jaws and insert the eye ends from the secondary bow. Then reinsert the pivot screws and tighten. The intermediate bow, for 3-bow dodgers, will attach to the remaining two jaw slides on the primary bow. Adjust the jaw slides so that all the bows fold together neatly on top of one another when folded forward.

Carry this assembly to the boat and secure the frame to the mounting plates on the boat using the Universal Deck Hinges included in the kit (or optional mounting brackets as required) (**Figure 13**).

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See our video for proper bedding of deck hardware: http://www.sailrite.com/Bedding-Deck-Hardware-and-Fittings-Video.

Use strapping (filament) tape to hold the frame upright at the proper spread and height. Run the tape from a forward point on the deck (ex. mast) aft to the center of the first bow, across the remaining bows, and then down to a solid point on the center line of the boat. Double check the fore and aft bow height measurements, readjusting their position as necessary.

An attractive dodger frame forms about a 90° right angle with the primary and secondary bows (or each bow is at about a 45° angle with the deck of the boat). The angle of the intermediate bow should be consistent with the secondary bow. Keep in mind the maximum spread between the bows is about 40 inches. The forward bow of the frame should also pitch down 1 to 3 inches lower than the aft bow. This will encourage water to run forward.

Double check to make sure the frame placement and position allows for clear passage for the boom and mainsheet over top, unobstructed movement forward on the boat, and adequate protection from the weather (**Figure 14**). Readjust the frame position if necessary.

14

When satisfied with the frame position and appearance, tighten the set screws on the jaw slides and firmly secure the bows to the center tape. Mark the frame locations on the center support tape so it can accurately be returned to this position following the next step.

Step 5:
FRONT PANEL ATTACHMENT LINE

Collapse the frame forward. Drop a line straight down from the collapsed frame to the deck and mark it with chalk or a grease pencil (Figure 15). This line defines the attachment point for the dodger's forward panel. The front panel can be difficult to fit because there must be provisions for the sliding hatch and other protrusions on the deck.

15

Before continuing, decide where and how the leading edge of the dodger will be fastened. A combination of these attachment methods will also suffice.

- **Cloth-to-surface snap fasteners** are the most common method of attachment along this edge (Sailrite kits include snaps). Teak or mahogany mounting wedges will help installation if the boat does not have molded spray rails.

  Standard snaps work best with shear strain but should be able to handle up to a 45° pull. In critical high tension areas, replace standard snaps with hard action snaps (sold separately) that require greater force to unsnap. Remove the old button/socket combination by drilling out the rivet of the snap button and install a new hard action socket.

- **Short lengths of awning track** can be secured to the deck and boltrope to the panel's lower edge. Slip the boltrope into the track for a strong, watertight connection to the deck.

- **Common Sense (twist lock) fasteners** will provide a quick and very secure attachment of the dodger to the boat. The stud makes for a very high profile, but it is easy to grab and locate. Common Sense fasteners require a manual twist to lock and release and will not come undone otherwise.

- **Pull-It-Up fasteners** are cleverly engineered, self-locking snap fasteners that feature easy installation and very high strength and connectivity. The fastener will only release by lifting up on the spring loaded cap. Installation only requires an inexpensive key and a hole cutter.

Step 6:
FINAL FRAME ASSEMBLY

After marking the front panel attachment line, raise the bows back to their former locations on the center support tape. Firmly secure the frame position by running 2 additional tapes, similar to the center one, just inside the spline joints along both sides of the frame. Use these tapes to insure that the frame is square and the bows parallel. Measurements from spline joint to spline joint (from bow to bow) should be equal (Figure 16).

16

Use additional tape to firmly secure the entire frame. The rigidity of the frame is critical for making an accurate pattern. If necessary, adjust the tape to eliminate any inconsistency in bow alignment. The tops of all the bows should be parallel when sited from the front or back.

Step 7:

TOP PANEL PATTERN

Please read these instructions carefully before patterning.

Note: Each bow has a center line mark (marked by Sailrite). These instructions will reference that mark frequently as well as the port and starboard spline joints. Both serve as consistent reference points.

With the frame securely anchored and taped, use filament tape, basting tape and an inexpensive plastic (like Dura Skrim) to pattern the fabric top. The tape will be used to secure the patterning material in place over the frame. Proper placement of the tape is very important as the tape will serve as a guide to mark the panel edges that will ultimately become the seams.

Begin by applying filament tape to the TOP surface (outside and opposite the bow legs) of the forward and intermediate bows (Figure 17). Apply the tape to the AFT surface of the aft bow.

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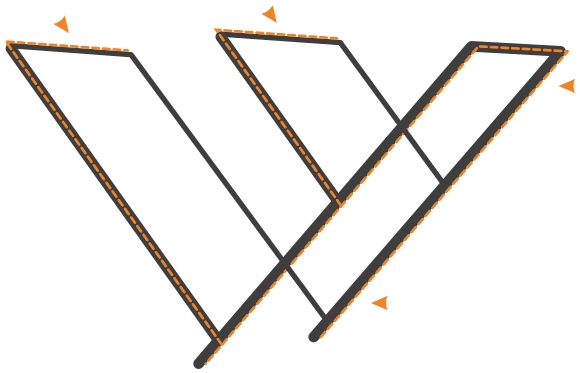


------ = Tape placement

Next, apply basting tape on top of the filament tape (Figure 18). DO NOT put the basting tape directly on the frame as it is very hard to remove. The filament tape can easily be peeled away to remove the basting tape when it is no longer needed. Leave the backing paper in place to prevent premature adhesion.

18

There will be a pattern for each span from bow to bow and from the forward bow to the deck (i.e., two patterns for a 2-bow frame and three for a 3-bow frame). If the pattern material is too narrow to cover the span, tape two widths together.

TOP PANEL PATTERN

Drape the pattern material over the basting tape on two bows (for 3-bow frames start with the aft-most pattern) (Figure 19). Starting at the center of each bow, peel away the backing paper from the basting tape and smooth the pattern material down onto the bows working toward the outer edges. Remove any wrinkles in the material.

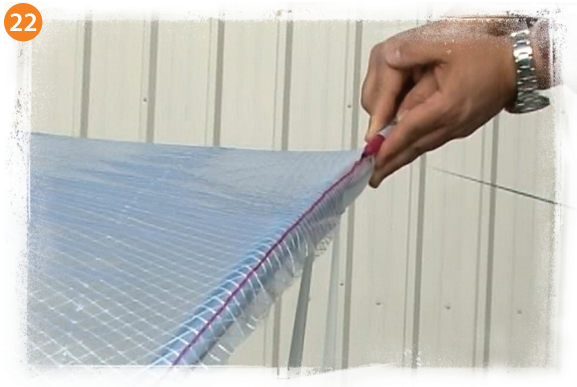
19

Pay careful attention to the curves along the leading and trailing edges of these patterns (Figure 20). If the material does not look good, pull it away from the double-sided tape and try again. It may be helpful to fit the patterning material with two people. Once complete, trim the pattern material so that it extends roughly 1" beyond the tubing.

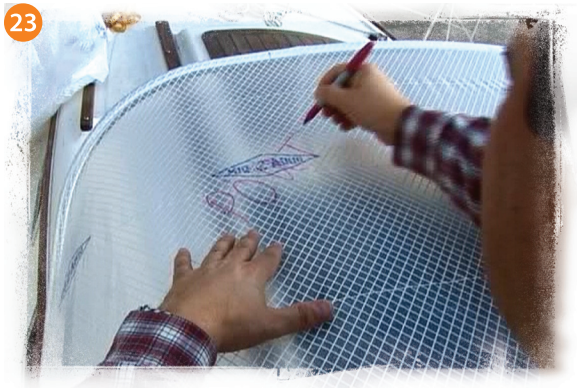
MARK & LABEL TOP PANEL PATTERN

Draw seam lines along each bow. For the line on the aft bow, hold the marker parallel to the deck (horizontal) and mark the aft surface of the bow (**Figure 21**).

For the other bows, hold the marker perpendicular to the top side of the bows (**Figure 22**), vertical and in line with the bow legs).



Label the port outside surface of each panel as POUT and the starboard outside surface as SOUT (**Figure 23**). Place match-up marks on the pattern at the center line points and at each spline joint on both bows.



On only the aft-most panel pattern (the only top panel for 2-bow dodgers):

- Put a dot or line at the top of the jaw slide(s) on each side of the aft (primary) bow. This mark will help determine the length of the aft zipper sleeve.
- Mark where support straps can encircle the aft bow to hold the dodger in position. Carefully consider their location and how they will affect sail sheeting and crew movement forward around the side of the dodger. Ideally, the location will be just above the curve in the bow (or just below if necessary) on both sides.

3-Bow Dodgers: Repeat Step 7 to create the forward top pattern from the intermediate to forward bows. Sailrite recommends leaving the aft pattern on the frame to ensure accurate and identical transfer of seam lines. Simply apply basting tape on top of the existing pattern just behind the seam line.

Trace seam lines across the forward (secondary) and intermediate bows all the way to the aft edge of the primary bow. Connect the seam lines on the port and starboard edges with a line following the aft edge of the primary bow (this line should look like an extension of the aft bow seam line).

Step 8:

FRONT PANEL PATTERN

Once the top panel is patterned (or both top panels for 3-bow dodgers), turn to the forward panel of the dodger. This pattern can be awkward to fit because there must be provisions for the sliding hatch and other protrusions on the deck.

Filament (strapping) tape may not be necessary along the marked front panel attachment line (Step 5) since it does not adhere as aggressively to wood and fiberglass. In any case, apply basting tape just aft of the attachment line marked on the deck (**Figure 24**).

If the top panel pattern has been pulled away from the forward bow, reapply both tapes. Sailrite recommends leaving the top pattern material in place and simply applying basting tape over top just behind the seam line mark (**Figure 25**). This ensures accurate and identical seam line transfer to the top edge of the front panel.

Smooth the pattern material in place. Carefully remove any wrinkles (**Figure 26**).

MARK & LABEL FRONT PANEL PATTERN

Transfer the seam line from the forward bow to the pattern, holding the marker perpendicular to the top side of the bow (**Figure 27**, vertical and in line with the bow legs). Extend the line all the way to the primary bow around the aft edge of the jaw slide on each side.

Draw a line on the forward edge of the pattern parallel to the attachment line (Step 5) on the cabin top, adding 1/2" to allow for fastener installation (**Figure 28**).

Cut slits in the pattern material (up to the line) to accommodate for the shape of the deck and any protrusions (ex. companionway hatch, hand rails, etc.) Slits should not exceed beyond the line into the pattern.

Next, draw the port and starboard edges. Start at the end point of the seam line along the forward bow (on the aft edge of the primary bow) and follow the aft edge of the primary bow all the way down to the pivot point. Extend the line to the pivot snap point (**Figure 29**, this snap should be in-line with the primary bow so the frame can fold forward without unsnapping). Then connect this line with the forward edge in an attractive manner, taking into consideration any protrusions.

Step 9:

PATTERN DETAILING

Label SOUT and POUT on the starboard and port outside surfaces, the center point on the forward bow, and the location of the two spline joints along the upper edge. If control lines will run under the leading edge of the front panel, mark their location.

Before removing the pattern material from the frame, mark the window position (**Figure 30**). Only the position and angle of the most extreme outboard edge of the window needs to be marked. The window looks best if this edge runs parallel with the primary (aft) bow. This line can easily be transferred to the opposite side of the pattern on the cutting table.

30

Carefully remove the pattern material by either pulling away the filament tape or pulling the pattern from the double sided tape. Remove the double sided tape if it sticks to the pattern, and remove the filament tape from the frame.

Add a 1/2" seam allowance to all edges of each pattern. It is a good idea to use a 1/2" guide (ex. 1/2" wide flexible spline) to make smooth lines (**Figure 31**).

31

When finished, there will be two parallel lines 1/2" apart all the way around each pattern. All final pattern shapes will be cut along the outer line.

These patterns will be used to create the openings for control lines, webbing support straps, protrusions on the cabin top, and the hatch. The aft and intermediate bow sleeves and aft edge tails (fabric strips) will also be created from these patterns. The following pattern details will help guide this work.

AFT/TOP PANEL DETAIL

On the pattern edge running along the aft bow, place marks 4 inches inside the outer corners. These marks will define the maximum length of the aft bow sleeve. At each mark, measure and mark a 6" line into the pattern to indicate the width of the sleeve (**Figure 32**).

On this same edge, draw 3" x 1.5" semicircles (with 1/2" seam allowance marked outside) around the webbing strap location marks (**Figure 32**).

A sleeve will be needed to support the secondary bow (or intermediate bow for 3-bow frames). Mark a 38" x 6" sleeve centered along the forward edge of the aft/top panel pattern (**Figure 32**).

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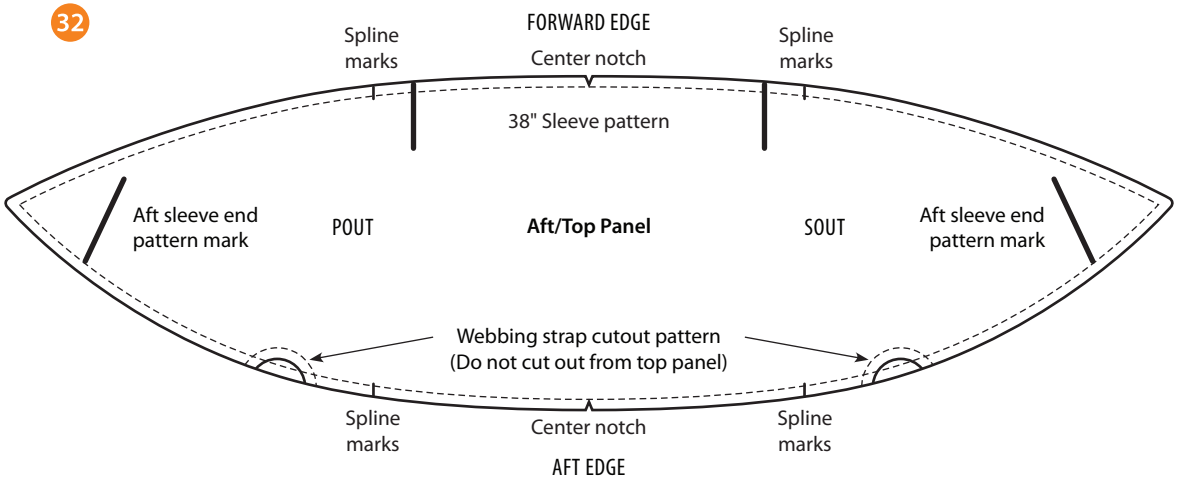

3-Bow Dodgers: A sleeve will be needed to support the secondary bow. Mark a 38" x 6" sleeve centered along the forward edge of the forward top panel pattern (Figure 33).

FRONT PANEL DETAIL

Mark shallow semicircles for any control lines along the leading edge of the front panel (Figure 34). Make these 1 inch deep by whatever width is required less 1 inch (to provide the normal 1/2" seam allowance on each side).

Fold each panel pattern in half down the center. The two halves should nearly mirror one another if the frame is symmetrical (the front panel edge may have unique cutouts). With the patterns folded, cut a small 1/4" notch in the center of each pattern along their forward and aft edges. The notch should match the center line mark transferred from the frame to the pattern. Also, transfer the window limit mark on the front panel to the opposite side if not already done.

Cut out each pattern along the outside seam allowance lines (Figure 35). Do not cut out the webbing strap openings or cut off any lines or marks made during pattern detailing as they will be used to markup the fabric panels.

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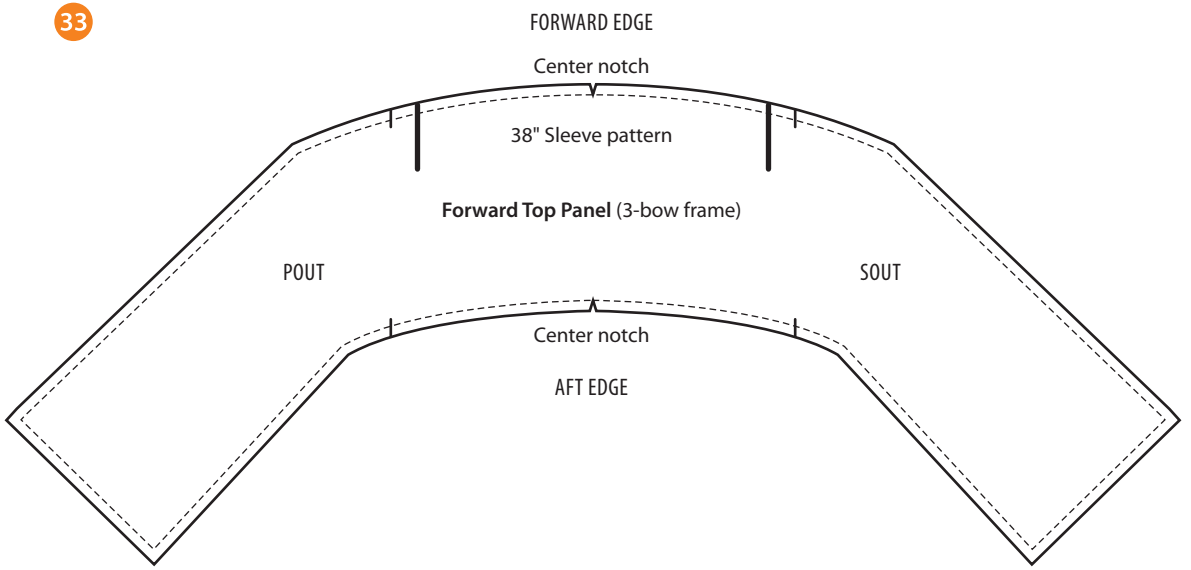

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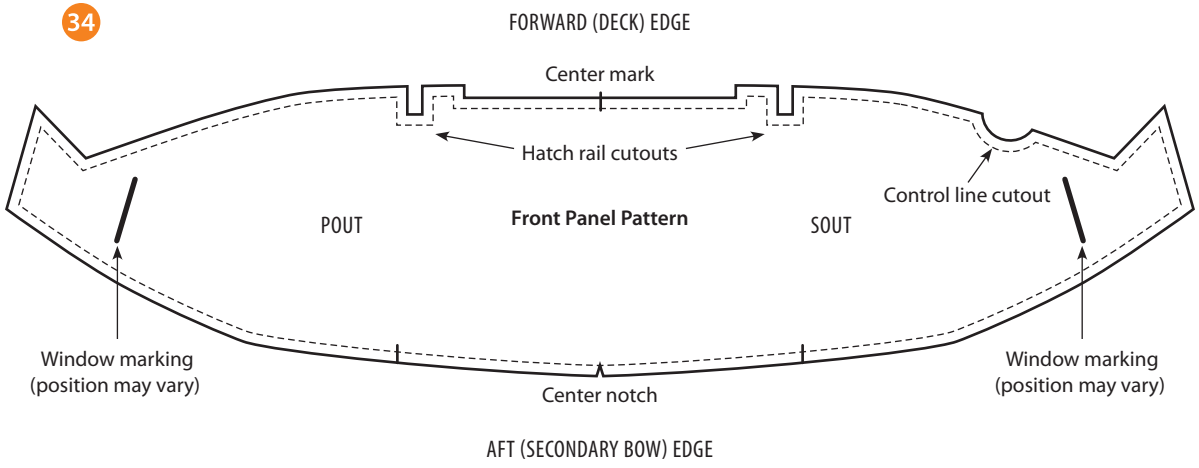

Step 10:

MARKING & LABELING PATTERNS

Except for the tails, lay the patterns on top of the cover fabric so the length of the pattern runs with the thread line of the fabric (along its length or width). Mark all the edges with a soapstone pencil or chalk.

If using Sunbrella acrylic fabric (most common fabric for dodgers), labeled (POUT & SOUT) patterns can be flipped to get a better fit since there is no right or wrong side to the material. However, if using a fabric that has a "right" side, do not flip the patterns.

Label the fabric panels POUT and SOUT (with chalk or soapstone only), mark the spline joints, and notch the center line edge (no deeper than 1/4" or it may show when sewing panels together) just like the patterns (**Figure 36**).

36

FRONT PANEL PATTERN

To reduce waste, line up the top edge of the forward panel along one edge of the fabric (**Figure 37**).

37

Make sure to trace the control line cutouts as they will be cut out along the seam allowance line on the fabric panel itself (**Figure 38**).

38

Transfer the window limit marks from the pattern to the fabric (**Figure 39**). It may be easiest to line up a straight edge under the pattern along the mark and then remove the pattern to mark the line. The length of the line is arbitrary since the height of the window is still undecided.

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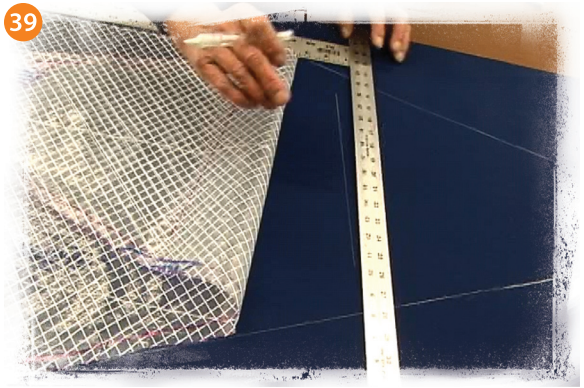


Use the front panel pattern to create the forward facing.

Forward Facing

Facing, or a fabric strip, will provide additional reinforcement along the bottom (forward) edge of the front panel. Pattern this facing right below the outlined front panel.

Move the front panel pattern down 6 inches from the marked bottom line on the fabric. Trace the pattern's entire bottom edge onto the fabric.

Then measure and mark a series of points 3 inches perpendicular to the inside of the curve. Connect the marks together, ignoring any cutout less than 2 inches deep. Continue a smooth line through any unmarked areas or cutouts (such as around sliding hatch openings) as necessary (**Figure 40**). Label POUT and SOUT on the fabric, matching the front panel.

40

The width of the facing should be no less than 1" at any point. If the cutouts are more than 2 inches deep, consider making a wider facing that will accommodate easier snap installation (Step 22).

AFT/TOP PANEL PATTERN

Lay the aft/top panel over the fabric and trace all the edges with soapstone pencil or chalk (**Figure 32 & 41**).

41

Label POUT and SOUT, center notches, spline joints, and sleeve end marks (**Figure 42**).

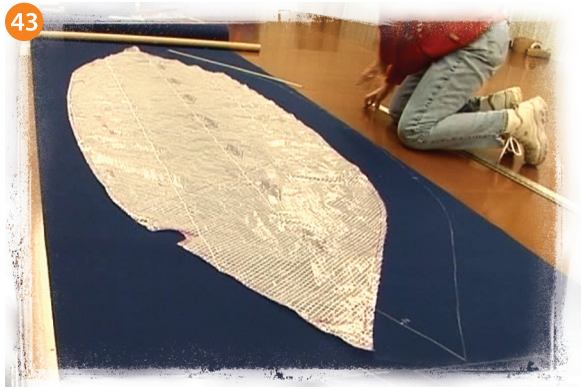
42

Use the aft-most top panel pattern to create the aft and center zipper sleeves and aft tail.

Aft Zipper Sleeve

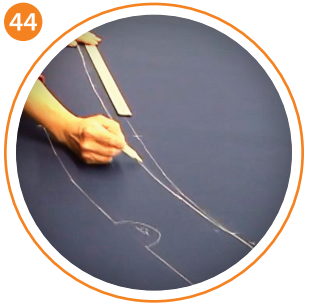
Slide the pattern down over the top panel outline until the aft sleeve end pattern lines are just off the surface of the top panel (**Figure 43**, a little more than 6 inches — if there is not enough width, a new section of cloth must be used). Trace the curve of this aft edge. Start and end the trace at the sleeve end lines on the pattern.

43



Then measure and mark a series of points 6 inches perpendicular to the inside of the curve. Connect the marks together (**Figure 44**). Label POUT and SOUT and cut a center notch to match the top panel pattern edge.

44



Webbing straps are normally secured around the tubing just inside the curves on the aft bow to pull aft on the frame. Sailrite recommends making modifications for these straps even if the dodger will be supported with rigid struts. Transfer the webbing strap openings (3" x 1.5" semicircles) to the aft edge of the sleeve (Figure 45).

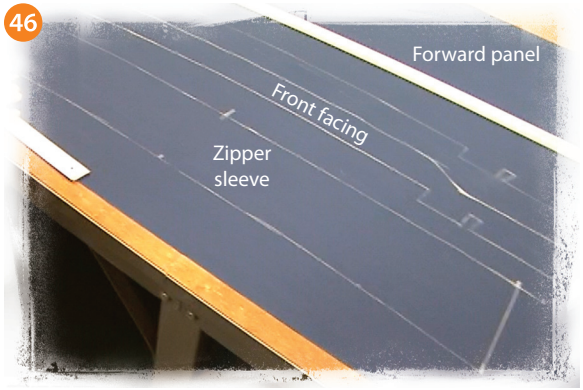
Note: Webbing strap openings will only be cut out of the aft sleeve panel. Do not cut from the aft/top panel.

Center Zipper Sleeve

A short zipper sleeve will hold the secondary (or intermediate bows for 3-bow dodgers) in place. The baseline edge of the sleeve, defined by the appropriate pattern curve, will be sewn into the top of the dodger.

Use the forward edge of the aft/top panel pattern as the baseline edge for the sleeve. Two 6" sleeve lines were drawn 38 inches apart along the forward edge of the aft/top pattern (Figure 32). If there is enough room (7-8 inches) below the facing, place that pattern just below the facing pattern and trace the forward edge of the pattern between the two lines (38" length). Clearly mark the center point.

Next, measure and draw a line down 6 inches at each end. Connect the end points with a straight line. The sleeve should have a rectangular shape with one slightly curved side. Label POUT and SOUT according to the aft/top panel (Figure 46).



If there was not enough room, pattern these zipper sleeves on a new fabric width or use whatever is left over after the larger panels are drawn.

Tails

A tail is a narrow double-thick strip of fabric that attaches to the aft edge of the dodger. The "tuck back" design will encourage water to run off along the edge rather than stream back from the edge under the dodger. This tail will also provide a platform for a zipper to extend the dodger's protection aft if desired.

The aft tail will be created from two strips of fabric that mirror the aft edge of the aft/top panel (similar to the back zipper sleeve). The tails will only be 3 inches wide and there will be no semicircles for the webbing straps.

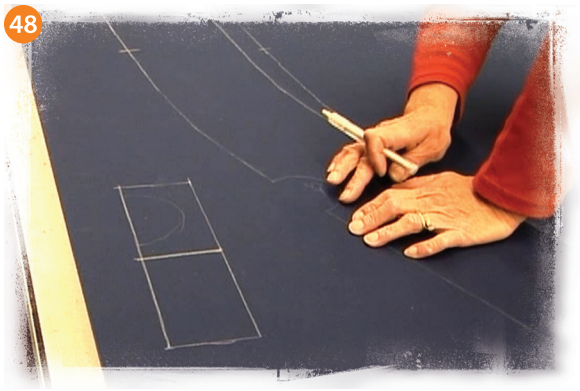
Trace the aft edge of the aft/top panel (start at least 3 inches from other panel shapes). To reduce fabric waste and conserve space, split the tail shapes in half (add 1/2" to each half for a seam allowance) and place on a diagonal. A diagonal cut on the fabric introduces a little stretch which makes them look better. Extend the length of this line roughly 14 inches beyond the pattern corners (at least the length from the pivot snap (p. 10, Figure 29) to the first jaw slide).

Then measure and mark a series of points 3 inches perpendicular to the inside of the curve. Connect the marks together. Label POUT and SOUT, cut a center notch to match the pattern edge, and mark the spline joints.

Create one more tail shape (or two halves) for the second layer of the finished tail (Figure 47).

Webbing Strap Opening Reinforcements

Cut two rectangles about an inch wider and deeper than the semicircles on the back zipper sleeve panel (Figure 48). These patches will be used to reinforce the semicircle edges and keep them from raveling.



FORWARD TOP PANEL PATTERN (3-BOW DODGERS ONLY)

Lay the forward top panel pattern over the remaining fabric and trace all the edges with soapstone pencil or chalk. Label POUT and SOUT, center notches, spline joints, and forward sleeve end marks (**Figure 33**).

Use the forward top panel pattern to create a center zipper sleeve for the secondary bow.

Center Zipper Sleeve

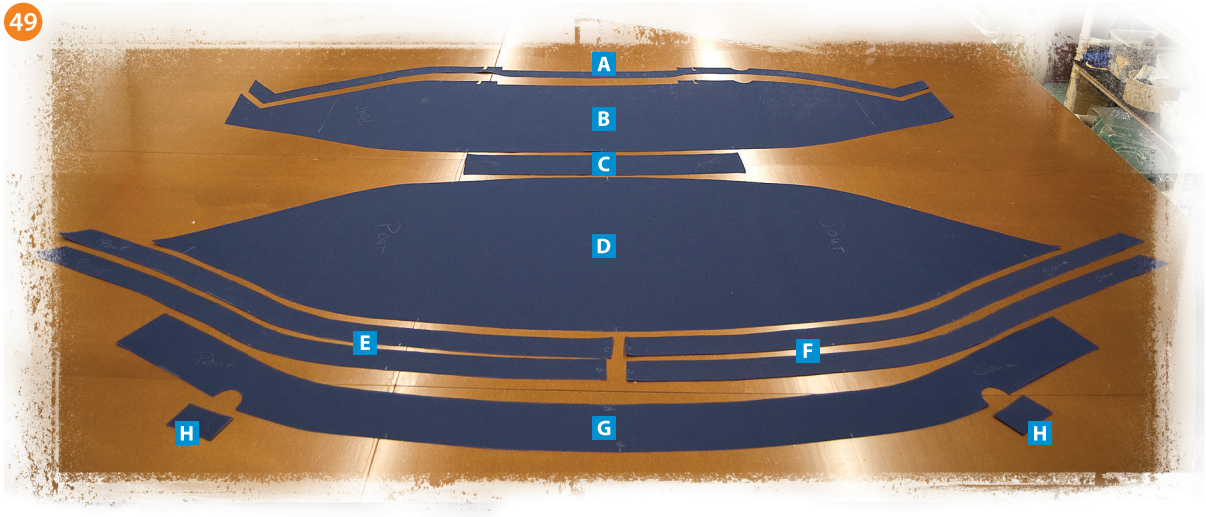
Use the forward top panel pattern's forward edge as the baseline edge for the sleeve that will hold the secondary bow. Two 6" sleeve lines were drawn 38 inches apart along the forward edge of the pattern (**Figure 33**). On remaining fabric, trace the forward edge of the pattern between the two lines (38" length) and clearly mark the center point. Measure and draw a line down 6 inches at each end. Connect the end points with a straight line. Label POUT and SOUT according to the top panel.

Label or number the sleeves, if necessary, so they can be matched with the appropriate bow and curve.

Step 11:

CUTTING THE PANELS

Cut the panels with a hotknife (or soldering iron or gun) if possible to prevent raveling. Scissors may also be used since all edges will be finished. **Figure 49** shows the resulting fabric pieces for a 2-bow dodger frame.



- **A** Forward facing
- **B** Front panel
- **C** Zipper sleeve (secondary bow)
- **D** Aft/top panel
- **E** Tails port side
- **F** Tails starboard side
- **G** Aft zipper sleeve
- **H** Webbing strap reinforcement

Not Shown: Patterns for 3-bow dodgers will also include the forward/top panel and a zipper sleeve for the intermediate bow.

Step 12:

WINDOW INSTALLATION

2-Bow Dodgers usually have one big window in the front panel; however, that large window can be divided and additional vinyl can be added as desired. Keep the windows clear of the frame as hot metal can cause the vinyl to harden and discolor. If a large window that overlaps a frame is desired, leave a strip of fabric to insulate the plastic or wrap the metal tubing with Boat Blanket fabric.

It is best to install the window before the fabric panels are sewn to reduce problems due to fabric puckering. The window vinyl can be laid flat and smoothed accurately on unsewn fabric.

The window will be sewn to the inside surface of the front panel. Transfer the pattern marks for the outside edges of the window to the inside surface of the front panel by folding on the line and creasing it well. Then mark along the crease on the inside surface.

Make an outline for the entire window on the inside surface of the forward panel (Figure 50).

50

This window pattern should be no closer than 3 inches to the top or bottom edges of the forward panel to allow for seaming and other fabrication requirements. Note that the actual edge of the window opening will be about 1 inch inside this pattern line.

Cut a slit near the center of the fabric section that will be removed to make the window. This initial cut is much easier and safer to make before the window is installed.

Lay the window vinyl over the panel pattern. Transfer the pattern from the fabric to the vinyl with a grease pencil or pen and cut the vinyl out with scissors. Run double-sided basting tape around all the edges of the "down" side of the vinyl. Peel away the backing paper and smooth the window in place over the inside of the front panel (Figure 51).

51

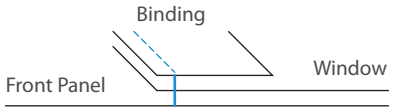
Run a second border of double-sided tape around the window after basting it in place. This tape will be used to secure a binding tape along the edge of the window. The binding will finish the raw edge of the vinyl.

If necessary, run basting tape along the inside edges of the binding so it stays flat when sewn (Figure 52).

52

Apply the binding over the window, flush with the raw edge (Figure 53). Overlap the binding at corners (miter seams are possible but difficult to secure firmly). Corners with a radius of 3 or 4 inches are possible if the binding is carefully stretched in place.

53



Run a row of straight stitches around the window within a 1/8" of the edge (Figure 54). Do not cut the fabric away until the entire cover is sewn. The fabric will protect one side of the window from scratching while the project is being completed.

54

Step 13:
ATTACHING FORWARD FACING

The facing strip will help reinforce the forward edge of the front panel. Place the facing strip over the bottom (forward) edge of the front panel so the curved edges match up. Both the front panel and the facing should be OUT side up.

Baste the strip in place with double-sided tape along the forward edge and run a single row of straight stitches 1/2" inch inside the two raw edges (start in the center and work toward both ends if not using the basting tape). Cut easing slits into the seam allowance at all inside curves and corners and truncate outside corners (Figure 55).

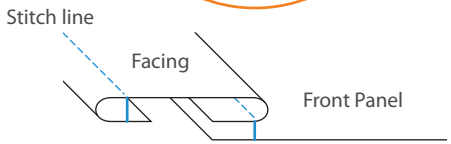
55

Apply double-sided tape along the inner edge of the facing strip. Roll that edge up and over onto the OUT side of the facing to form a 1/2" hem (Figure 56).

56

The slits and truncated corners will make it easier to fold the facing over around curves. Unfold the facing away from the front panel and sew the hem in place with a row of straight stitches 3/8" inside the edge (Figure 57).

57

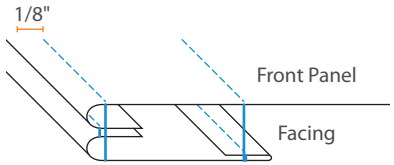


Fold the facing all the way over onto the IN side of the cover. Carefully push the seam line that joins the facing to the front panel to the very center of the folded front edge (Figure 58). Put a row of straight stitches within 1/8" of this folded edge.

58

Finally, run a row of stitches right over the top of the hem stitches to hold the facing in place along the inner edge of the front panel (Figure 59).

59



Keep the facing flat while sewing to keep from creating bubbles.

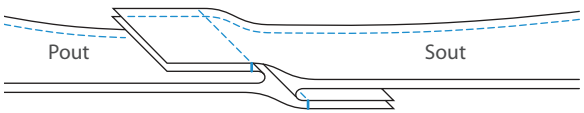
Step 14:
PREPARING SLEEVES & TAILS

Aft Tail

The aft tail is made up of two layers of fabric. If the tail was split in half to conserve fabric, first sew each set of halves together to make a complete layer. Lay one set of halves on top of one another with POUT and SOUT facing in and sew together with a 1/2" seam allowance down the center. Similarly, sew the other set of halves together but with POUT and SOUT facing out.

Lay the two assembled tail strips on top of one another, with the hems facing opposite directions out, POUT and SOUT labels facing the same direction, and the curves matching up (Figure 60). Baste the two strips together along the concave curved edge with double-sided tape. Sew them together with a 1/2 inch seam allowance. Smooth down the center seam allowances in opposite directions to reduce fabric bulk.

60



Cut relief slits in the seam allowance along the curved edges (Figure 61).

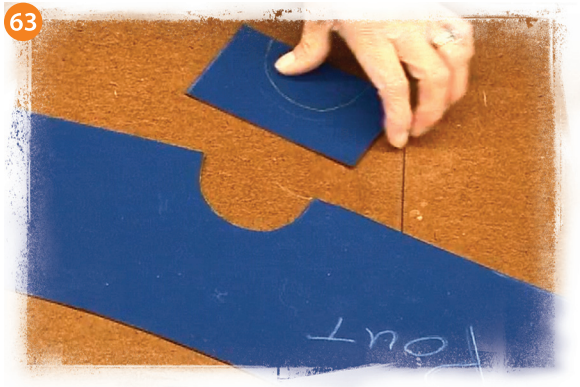
61

Unfold the two layers (hiding the seam), and while keeping the layers flat, sew a top stitch along the seam 1/8" from the concave curved edge (Figure 62). Again, the SOUT and POUT labels will be on top of one another facing the same direction.

62

Aft Sleeve

The aft (primary) bow sleeve has two semi-circular cutouts for webbing support straps that should be reinforced with backing rectangles. Trace the shape of the cutouts on the rectangles and cut (Figure 63). Baste the cut rectangles along the curved edges and apply to the IN side of the sleeve.



Sew the assembly together with a 1/2" seam allowance along the semi-circle curves. Cut relief slits along the curves and fold the backing material over onto the OUT side of the sleeve (Figure 64).

Finish each cutout with a top stitch 1/8" from the semi-circle edge (Figure 65).

Next, create a hem along the opposite (forward) edge of the aft sleeve for zipper attachment. Run a strip of basting tape along the concave curved edge of the sleeve on the OUT side. Fold a 1/2 inch hem up and over onto the OUT side (Figure 66).

Follow the same procedure to hem the narrow ends of the sleeve as well. Sew the end hems in place, but wait to sew the long edge hem until after the zippers are basted in place.

Next, secure the two longest finished (jacket style with starting boxes) zippers included in the kit along the hemmed inner edges of the sleeve (Figure 67).

Sailrite recommends two zippers so the cover can be zipped in place from each side to the center. If the zippers have single pulls (a tab on just one side) be careful to install the tapes so the zipper pulls are down against the hemmed edge. If the zippers have double pulls, the unnecessary pulls can be easily cut away after zipper installation.

Separate each zipper so there is one zipper tape with the zipper pull and one tape without. Baste the tapes with the zipper pulls in place on top of the hem on the OUT side of the sleeve so the pull tab and starting boxes on each zipper tape are flush with the ends of the sleeve. Do not apply the basting tape near the zipper teeth. Sew the zipper tapes to the sleeve with a row of straight stitches and stop just short of the center (this seam also secures the hem underneath) (Figure 68).

Attach the other zipper tapes to the tapes now sewn in place. If the zippers are too long, mark and cut off the excess zipper length leaving roughly a 1 inch gap between the zippers in the center (make sure the zipper slider is NOT cut off with the excess zipper). Press a stainless steel zipper stop over the next to the last tooth on each tape to keep the zipper pull from coming off.

Center Sleeve(s)

There should be a center sleeve for the forward (secondary) bow and for 3-bow frames a sleeve for the intermediate bow as well. Start with the sleeves IN side down. Run a strip of double-sided tape along the straight (zipper) side of the sleeve(s). Fold a 1/2 inch hem up and over onto the OUT side (**Figure 69**). Follow the same procedure to create a 1" hem at the ends of the sleeve(s) and sew them in place.

Baste and sew a 36" finished zipper to the hem along the straight sleeve edge. Separate the zipper tapes and baste one tape on top of the hem on the OUT side (**Figure 70 & 71**).

If the zipper has a single pull tab, install the tape so the zipper pull is down against the hem. Secure with a row of straight stitches and then zip the tapes together.

Step 15:
ATTACHING AFT SLEEVE & TAIL

Attach the aft tail and sleeve to the OUT side aft edge of the aft/top panel (**Figure 72**).

Apply basting tape all along aft edge on the OUT side of the panel. Baste the tail in place OUT side up over the tape, lining up the curves and the center and spline joint marks (notches will be buried in the seam allowance). Start at the center notch and smooth the tail out while working to the sides.

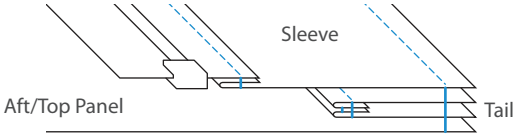
Next, apply basting tape on the IN side of the sleeve along the curved aft edge (skip over the webbing strap openings). Baste the sleeve over the tail assembly with OUT side up, again lining up the curves and the center and spline joint marks. Smooth the sleeve in place from the center out to the sides so that all the curves align perfectly. Use additional basting tape or staples to hold everything in place.

The tail ends should extend well beyond the panel, and the sleeve ends should be about 4 inches short of the panel corners (Figure 73).

73

Place a row of straight stitches 1/2" from the aft edge of this layered assembly to secure all the layers together (sew right across the semi-circle webbing strap openings) (Figure 74). Start these stitches from the center of the assembly to the end of the sleeve (about 4 inches short of each aft/top panel corner). Use the longest possible straight stitch to reduce fabric puckering. The remaining part of the assembly will be cut and finished later. Remove any staples after sewing is complete.

74



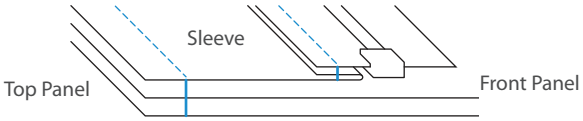
Step 16:
JOINING FORWARD PANELS

Join the front panel, the forward top panel (or aft/top panel for 2-bow frames), and a center sleeve together with a seam that will eventually lay over the top of the forward (secondary) bow. The assembly will be made up of three layers (Figure 75).

75

First, lay the relevant top panel OUT side up. Then place the front panel IN side up over it. Finally, put the center sleeve panel OUT side up over the first two (hems facing up) (Figure 76). Make sure the curve and all center and spline joint marks are lined up. Baste all the layers in place with double-sided tape or staples, starting at the center and working to both sides. Be careful not to stretch any of the panels when smoothed together.

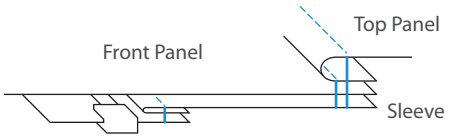
76



Run a row of straight stitches 1/2" inside the basted edge. Start sewing from the center of the seam and work outward toward the sides. Any inaccuracies in sewing will be limited to only half the seam. Use the longest possible straight stitch to reduce fabric puckering. Next finish sewing the other half.

Unfold the top two layers (center sleeve and front panel) along the seam line so the OUT surfaces are facing up (the sleeve will be under the front panel). Push the seam allowance under the top panel and run a top stitch within 1/8" of the seam line (fold) on the top panel side of the original seam (Figure 77).

77



The stitch should penetrate the top panel and seam allowance (not the front panel or center sleeve except what it is the seam allowance). Turn the assembly so the front panel with the window is outside the arm of the machine. This top stitch can be sewn from corner to corner since the assembly is firmly stitched in place. Put tissue paper (what ships with the window) under the window to protect it from scratching.

This seam, often called a semi-flat felled seam, is not only easy to do accurately, but it keeps one stitch out of the sun so it will last many years. The exposed stitch may require replacement in as little as 3 to 4 years but can easily be replaced since the shape of the cover will be maintained by the hidden stitch.

The panel assembly will no longer lay flat on the floor because the curves in the seam accommodate the curvature of dodger frame.

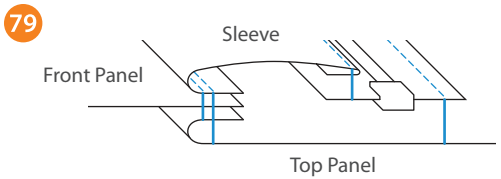
3-Bow Dodger: Similarly, join the aft/top and forward top panels. Lay the aft/top panel (extends from the primary to intermediate bow) OUT side up. Lay the adjoining panel IN side up over the intermediate bow edge next. Then lay the appropriate center sleeve OUT side up on top. Make sure the curve and all center and spline joint marks line up. Baste the panels together and sew to secure as directed above.

Step 17:
ATTACHING CENTER SLEEVES

Lay the dodger cover with the OUT side down and flip the center sleeve back onto the top panel toward the primary bow edge. Hold the sleeve flat and mark the outside corners of the attached zipper tape with soapstone or chalk. Pull the sleeve back 1/2 inch from the mark (**Figure 78**, to create room for the bow in the sleeve without causing a dip in the cover) and draw a straight line (using a straight edge) to help guide basting and sewing. Baste and sew the zipper down to the cover with a row of straight stitches (**Figure 79**).

78

79



3-Bow Dodger: Apply these same techniques to attach the center sleeve at the intermediate bow.

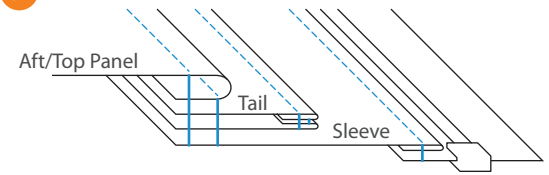
Step 18:
FINAL TAIL ATTACHMENT

Move to the aft tail panel to finish sewing the tail to the dodger cover. Working from the IN side of the dodger, match the tail to the recently joined front and top panels. Continue the stitch that secured the aft sleeve and the tail to the top panel (**Figure 80**).

80

Now that the tails are completely sewn, flip the cover OUT side up and finish the aft edge with a top stitch. With the forward panel underneath the top panel, pull the aft zipper sleeve and tail out away from the rest of the cover. Push the seam allowance under the top panel and run a top stitch within 1/8" of the seam line (fold) on the top panel side (do not accidentally sew the front panel) (**Figure 81**).

81



The stitch should penetrate only the top panel and the seam allowance (not the sleeves or tail except what it is the seam allowance).

Cut the tail ends (straight or rounded) flush with the corners of the cover. Trim the raw edges with binding tape (Figure 82).

82

Use basting tape to hold the binding in place, or use a binder for quick, accurate, and easy binder installation. Secure with a straight or zigzag stitch.

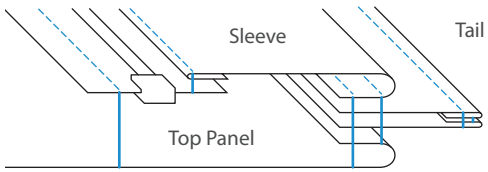
Step 19:
ATTACHING AFT SLEEVE

Join all the zippers halves together on the aft sleeve. Lay the dodger cover with the OUT side down and flip the aft sleeve and tail back onto the IN side of the cover (the OUT side of the sleeve will be against the IN side of the cover). Smooth the sleeve down as flat as possible and mark the outside edges of the attached zipper tape with soapstone or chalk (Figure 83).

Baste and sew the zipper down to the cover with a single row of straight stitches, starting in the center and working to the sides (Figure 84). Note that this seam will appear on the top of the dodger.

83

84



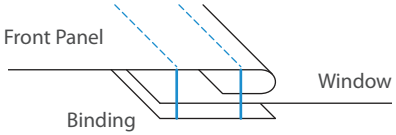
Step 20:
FINAL WINDOW INSTALLATION

On the OUT side of the front panel, mark a window cutout line 1-1/2" inside the stitches holding the window in place. Carefully cut the fabric away from the window on this line using the slit cut in Step 12 (Figure 85). Use 1/2" miter cuts at sharp corners and relief cuts on curved edges.

Roll under 1/2 inch of the cut edge (basting tape should not be necessary). Sew this hem in place 1/8" from the hem edge against the window and binding on the opposite side (Figure 86).

85

86



Put tissue paper under the window to prevent scratching. The paper will cleanly pull away from the dodger after the stitch is in place. The result will be a nicely finished window edge both inside and out.

Step 21:

AFT SUPPORT STRAPS

Two straps are used to support the dodger. First cut two pieces from the 1" nylon webbing (one 18 inches and the other 6 inches long). With the webbing slider facing up (Figure 87), thread approximately 1-1/2 inch of one end of the 18 inch piece through the slider's larger opening. Permanently attach the 18" piece to the slider by sewing the webbing loop just created down against itself. (Straight stitches are recommended for all machine stitching.)

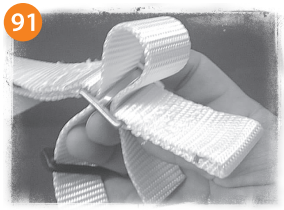
Take the free end of the webbing and put one twist in it so that it does not lie flat (Figure 88). The webbing will appear to have an open collar on the end opposite the slider. This twist is done in order to make the webbing lie flat when it is looped around the dodger frame.

Bring the free end of the 18 inch webbing under the looped end and sew them together, maintaining the twist. Carefully secure the 3 layers of webbing by sewing a Box "X" with medium stitches.

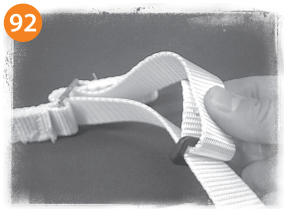
Now take the 6 inch piece of webbing and thread it through the small opening in the webbing slider. This becomes the release handle. Secure it in place using the same Box "X" stitch described above except in this case a twist in the webbing is not needed. It should be approximately 2 inches in length when finished (Figure 89).

Cut another piece of webbing to run through the webbing slider and down to the strap eye on the boat. Measure the length from where the strap will attach around the dodger frame to where it will snap to the strap eye and add 6 to 12 inches. Permanently attach a snap hook to one end of this webbing by looping the webbing through the hook's rectangular opening and sewing the webbing down against itself using a Box "X" stitch (Figure 90).

Slide the square plastic loop-loc over the other "free" end, and loop the free end up from the bottom of the webbing slider through the large opening, over the slider's center divider and down through the slider's smaller opening (Figure 91).



The free end of the webbing on top of the strap (between the dodger frame and strap eye) will be used to tighten the strap. To keep the strap from flapping, sew the loose end to the loop-loc (Figure 92).



To attach the webbing assembly to the dodger frame, hold the open collar of the twisted loop on the 18 inch piece slightly above the outer side of the dodger frame. Bring the snap end of the webbing strap up from behind the dodger frame, passing through the collar, and pull the snap end down to secure. The resulting knot will look something like the knot on a man's tie (Figure 93).

Tighten the webbing strap by pulling on the long tail of webbing held down by the small plastic loop-loc. Loosen the webbing strap by pulling up on the short release handle created from the 6" piece of webbing.

Find secure attachment points on the boat or use the strap eyes and screws (included in the kit) (Figure 94). Be sure to position the straps so that movement around the boat and dodger is not obstructed too much.

See Step 24 (p. 28) for optional support systems.

Step 22:

ATTACHMENT TO THE BOAT

The dodger is now complete. Zip the cover onto the frame and loop the webbing straps through the openings in the aft sleeve. Attach the straps to the strap eyes or a secure attachment point to apply aft tension on the dodger. Aft tension is required to accurately position and install snap fasteners along the lower edge of the front panel.

Locate the center point on the bottom edge of the front panel. If necessary, lay the front panel pattern back over the panel to identify the center. It is normal to start snap installation at the center point (Figure 95); however, if that is not desirable, measure from the center point to a location as close to the center as possible on both sides and start there.

95

During Step 5, a front panel attachment line was drawn on the cabin top defining where the dodger would attach to the boat. This line is typically created by dropping the frame forward and projecting the line directly downward. If the dodger folds down over a stationary surface (unlike an external sliding hatch), this line will suffice. If the dodger will collapse over the hatch, a line can be drawn over an open hatch, over a closed hatch, or both lines can be drawn and two rows of fasteners installed to accommodate either hatch position for the center portion of the front panel edge.

Once the attachment line is finalized, begin fastener installation. Install a male snap fastener at the center of the cabin line. Use a 7/64" drill bit to install the #8 screws (included in the standard Sailrite kit). Drill a pilot hole just the depth of the screw, which in most cases means the fiberglass will not be completely penetrated. Put a dab of silicone sealant over the hole and screw the fastener in place.

Install a matching female fastener in the center of the cover 1/2" inside the front edge. Sailrite kits include an inexpensive snap fastener installation tool for this work. Punch or drill a 1/8" hole in the fabric. Insert the fastener button on the top side of the cover and nest it in the round die. Place the female socket on the underside of the cover, and use the installation tool and a hammer to flatten the rivet and lock the female snap in place (Figure 96). A heavy backing plate can speed up this step.

96

Snap fastener installation is much easier when the fabric is not on the frame. If using the snap fastener installation tool, install several or even all of these female snaps at once, spaced evenly anywhere between 3 to 6 inches apart.

For quick and easy snap fastener installation, try the Pres N Snap Tool. Snaps can be installed with the cover in place on the frame with one simple squeeze of the tool (Figure 97).

97

Although an expensive tool, the Pres N Snap is well worth the time and energy saved on future canvas work and fastener installation.

Regardless of the tool used, be careful to pull the dodger fabric taut from the center as the male snaps are marked and installed. It should not be necessary to deviate from the front attachment line on the deck. The male snaps should all be placed evenly along that line opposite the female fastener (3 to 6 inch intervals) (Figure 98).

98

A strip of Velcro can be used to seal the dodger over a sliding hatch or snaps can be installed there as well. Sew the hook side of the Velcro to the dodger cover and glue the loop side down on the hatch with contact cement. Velcro can also be used anywhere else as an attachment method.

Pull-It-Up fasteners, Common Sense (twist lock) fasteners, and Pull-The-DOT fasteners are all also great attachment options if preferred (not included in Sailrite Dodger Kits). Figure 99 shows a dodger using an Extreme Seal Foam Strip along the leading edge of the dodger (no fasteners). The hatch is pushed forward under the lip to open.

99

Step 23:
SIDE CURTAINS

Detachable side curtains provide additional protection at the sides of the dodger. They are easy to add, however extra fabric may be required. Sailrite does not guarantee enough fabric for side curtains in each dodger kit. Before ordering additional fabric, check to see if there is enough leftover fabric or window material to complete these curtains.

Use any leftover pattern material to create the side curtain patterns. If the primary frame is aft (as assumed throughout these instructions), the forward side of the curtain panel will be straight (Figure 100).

100

The curtain should fit snugly under the tail and extend from the pivot snap up just above the webbing strap opening and aft to a point just aft of the eye strap securing the webbing if possible. These guidelines will result in a side curtain that covers the webbing straps. There may be other considerations, such as winch handles or main sheet traveler clearance, that will require modifications to the shape of the curtains.

One pattern should work for both sides of the boat. Label one side SOUT and the other side POUT.

For fabric side curtains, add a 1/2" seam allowance to the pattern and create 2-1/2" wide backing or facing strips for all edges. The shape of these strips should mirror the edge it will be sewn to. Place each strip (OUT side up) flush with the proper curtain edge (OUT side up). Run a row of straight stitches 1/2" inside the flush edges.

Baste a 1/2" hem along all the ends and unsecured long edges of the strips from the OUT side over onto the OUT side. Then fold the strips under onto the IN side of the curtain and top stitch in place with a row of straight stitches along those folded edges. Baste the hemmed edge of each strip in place on the IN side of the curtain. Finish with a row of straight stitches along the inner edge of each backing strip. This is essentially the same procedure used along the forward edge of the front panel.

For window side curtains, simply cut the window material to the pattern shape. Then cut 2-1/2" wide facing strips for BOTH sides of each curtain edge, mirroring the shape of the edge it will be sewn to. Fold 1/2" hems along all the long edges of the facing, using basting tape to hold in place. Then use basting tape to secure the facing flush to the curtain edges on BOTH sides of the window material (**Figure 101**).

At covered corners, shorten the facing by 1/2 inch and do not hem around the corner. Run a row of straight stitches within an 1/8" of the edges and put a second stitch along the inner edge of all the facing to secure the inner hem.

Attach the side curtains to the dodger along the inside of the tail with Common Sense (twist-lock) fasteners, snap fasteners, or zippers. Snap or Common Sense fasteners can also be used to secure the curtains to the hull or use shock cord or rope to stretch them out. Quick attachment and release makes it possible to quickly access the sheets or winch handles.

Congratulations! You've now successfully completed your new dodger. Continue reading for several optional embellishments. Don't forget to share your completed project photos with us, we'd love to see them!

Step 24:
OPTIONAL SUPPORT SYSTEMS

Instead of using strap eyes on the deck to secure webbing support straps, secure to stanchions or stern rails with attachment loops (materials not included). Cut a 12 inch piece of webbing and pass one end of the strap through a D-ring. Place a twist in the webbing and sew it down to itself. Loop the strap around the stern rail and snap the support strap snap hook to the D ring.

Another popular alternative is the use of rigid support struts (materials not included). Rigid supports increase the strength of the frame but sacrifice the convenience of quick collapse and storage capability. Sailrite offers Rigid Support Struts Kits in 7/8" aluminum (#100267) and 1" stainless steel (#100268).

▶ Rigid Support Strut Kit

Step 25:

OPTIONAL WINDOW INSTALLATION

In warm climates, it is often desirable to open up the forward panel of the dodger. This option can easily be added by placing a #10 zipper on each side of the front window. The window can then be unzipped, rolled up, and neatly tied.

Sailrite dodger kits do not include the materials needed to implement this window option. Additional supplies needed: 2 - #10 double pull locking finished zippers (3 inches longer than window opening), 2 cloth-to-cloth snap fasteners (complete set), and 20 ft. 3/4" binding.

The size and the shape of this center window section is dependent on personal preference. One option is to slit the window from the bottom front edge of the dodger to the top of the window at both hatch rails. Although the slit does not need to be vertical, the window will roll more smoothly if it is.

Mark the window slit on one side of the dodger (Figure 102).

102

Remove the dodger from the frame and place a mark on the opposite side of the front panel bottom edge to designate the window slit there. Then, measure the diagonal between the point at the bottom edge on one side to the point at the top edge of the slit on the other side (Figure 103).

103

Use this measurement to locate the top point for the slit on the opposite side (measure from the bottom of the completed slit line). Draw lines on the OUT side of the window to designate the slits.

Lay down two lengths of binding side by side along each slit line on the OUT side of the dodger (Figure 104).

104

The binding should butt up against the fabric at the top of the window and extend all the way down to the front edge of the dodger. Wrap the binding around this front edge and up about 2 inches on the IN side of the front panel. Cut the binding with a hotknife if possible.

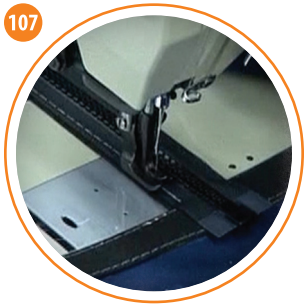
Baste the 4 lengths of binding carefully in place with double-sided tape (two per slit , one on each side of the slit). Place a row of straight stitches along the inner edge of each length of binding (edge closest to the slit line) (Figure 105).

105

Baste two zippers to the IN side of the window. Each zipper should lay right on top of the two binding tapes that run along the slit lines (Figure 106).

The zipper should extend about 1-1/2" above the window line at the top (the starting box should be at this end) to within 2 inches of the leading edge of the dodger. Cut away any excess zipper length from the bottom (the end that is last to close). Once cut, remove the zipper slider so the assembly can lay flat for sewing and cutting.

Run straight stitches up both sides of the zipper tape, stopping at the top of the window (Figure 107).



Stitching would not look good if run across the window binding. The last 1 to 2 inches of zipper will be left unattached at the top, but this will suffice since the slider cannot come off a finished zipper.

With the zipper closed, carefully insert scissors above the zipper and cut the window slit between the two lengths of binding. The fabric assembly at the leading edge of the dodger may be difficult to cut, but the window material should cut very easily. Do not cut the binding along the slit. Cut all the way up to the top of the window and stop (Figure 108).

Work the slider back onto the closed zipper tape or separate the zipper completely and run the slider onto the side of the zipper tape with the starting box. Then insert the end of the other tape use the slider to close the window slit. Press a stainless steel zipper stop over the final teeth of the zipper on both sides to keep the slider from coming off (Figure 109).

Finally, create 2 binding straps to hold the rolled window up (Figure 110).

Cut 2 lengths of binding long enough to completely encircle the rolled up window plus an extra 6 inches. Use a hot knife if possible to seal the ends as they are cut. Position these straps at equal intervals above the window. At one end of the binding straps, fold over 2 inches of binding and secure these doubled ends on the IN side of the dodger with a male snap stud and rivet (the stud will be on the OUT side). Similarly, fold over 2 inches of the loose ends and install the female snap socket with a button rivet. The socket will be on the IN side of the strap so it can be wrapped around the rolled up window and secured to the stud on the outside of the dodger.

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