



Subject: New Procedure for Replacement of Convertible Top

Application: 1995– 900 Convertible

CATEGORY		Body	
SECTION	8	PAGE	152
ISSUE	04/97–0757	CODE	812

A new top was introduced in 1996 production that features a rear window mounted with clips instead of glue. A number of modifications must be made to the old top frame so that the new top cover will fit. The top with a glued rear window (ASC) will be discontinued in spare parts when supplies are depleted.

The following procedure explains how such a modification should be carried out. The description also includes an explanation of how a top cover of new design is mounted on a top frame of new type. Removal of the top cover is carried out the same but the procedure is included here to simplify your work.

When a top cover with glued rear window is to be changed for a top cover featuring a clipped in rear window, the headlining must also be changed. The method of changing the headlining has been modified and is described on pages 10–12 of this bulletin.

Cars Affected:

1995– 900 Convertible

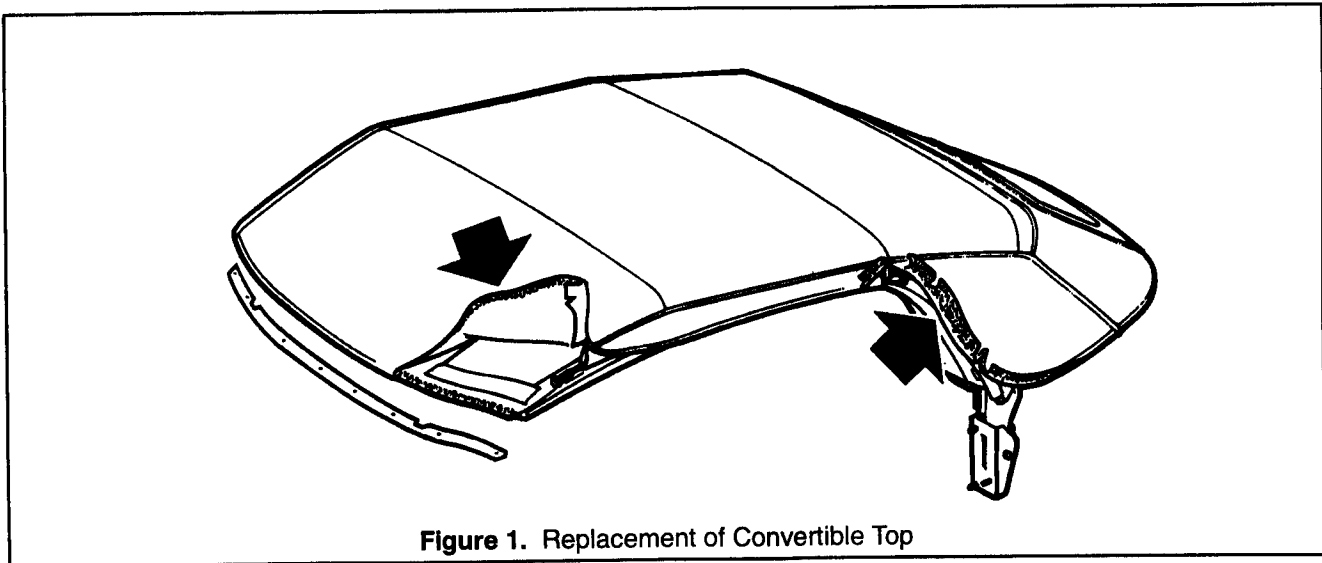


Figure 1. Replacement of Convertible Top

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Parts:

Top fabric, black 74 97 670

Includes: top cover fabric, black

Pop rivets for elastic straps (4)

Washers for elastic straps (4)

Top fabric, blue 74 97 688

Includes: top cover fabric, blue

Pop rivets for elastic straps (4)

Washers for elastic straps (4)

Headlining 74 97 704

Must be changed only when a top cover with glued rear window is to be replaced by a top cover featuring a clipped-in rear window.

Includes: Headlining fabric and screws (6)

Modification Kit 74 97 647

For changing the top cover on a top frame of old type designed for a top cover with a glued rear window.

Includes:

Guides, rear window, fifth bow (2)

Screws, guide (2)

Stop plates for fourth and fifth bows (4)

Pop rivets for stop plates (4)

Washers for stop plates (4)

Washers for stop plates (4)

Screws for stop plates (4)

Shims (2)

Screws for shim (2)

2nd Bow – ONLY if needed 46 97 223

Also Required:

3M Super Weatherstrip Adhesive 051135-08008

3M Adhesive Remover 051135-08984

Threadlocking adhesive (Loctite) 74 96 268

6-8 spring clamps source locally

M6 Tap source locally

3mm and 5mm drill bits source locally

(Be sure your drill bits are brand new to ensure clean cuts to proper dimensions)

Power upholstery stapler and staples source locally (such as Duofast Medium B1-5324)

4th Bow Fixing Tool 82 93 045*

*Available for ordering directly from Kent-Moore at 1-800-345-2233.

Important

It is extremely important to use the right tools for the job so a high standard of workmanship will be assured.

Action:

Before you start with this top replacement:

- Determine if a replacement bow should be ordered **prior** to beginning the top replacement. Check that the 2nd bow is cut according to PSI 04/97-0753.
- If it is correctly cut, the remaining ends should be about 5mm wide and rest on the rubber pad of the side rail. See Figure 2.
- If the bow was incorrectly cut, the 2nd bow can be too low, causing the new top cloth to get caught between the door glass and the side rail seal. See Figure 3 .
- Replace the 2nd bow if it has been cut too far. The replacement should be ordered prior to removing the customer's top cloth so the customer's car is not held up for an extra day. 2nd bow, P/N 46 97 223 is already Factory cut.

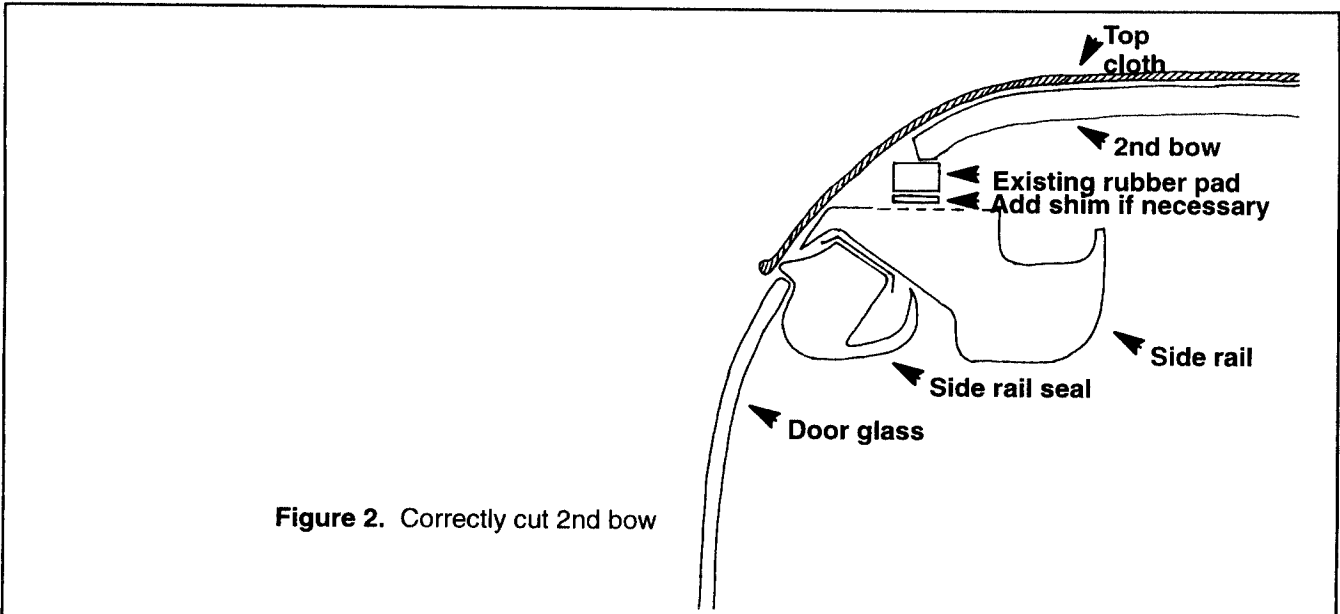


Figure 2. Correctly cut 2nd bow

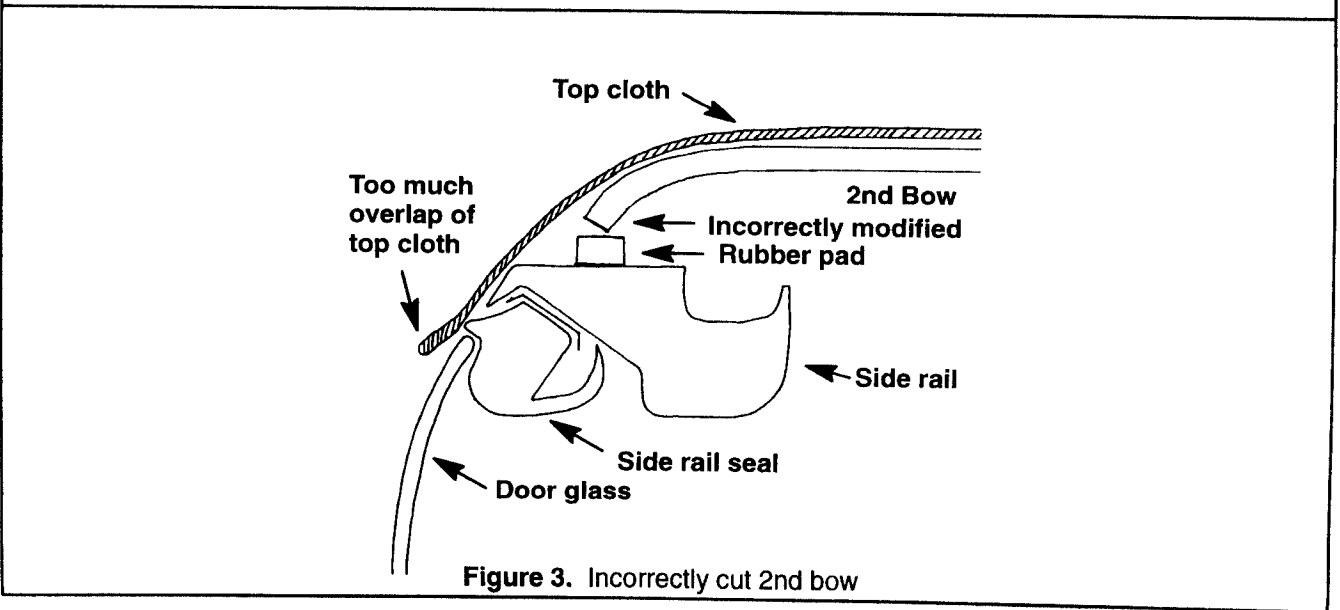


Figure 3. Incorrectly cut 2nd bow

Headlining-

To remove:

1. Top with glued rear window: Drill out the pop rivets securing the headlining. Do not enlarge the holes beyond 3mm diameter.

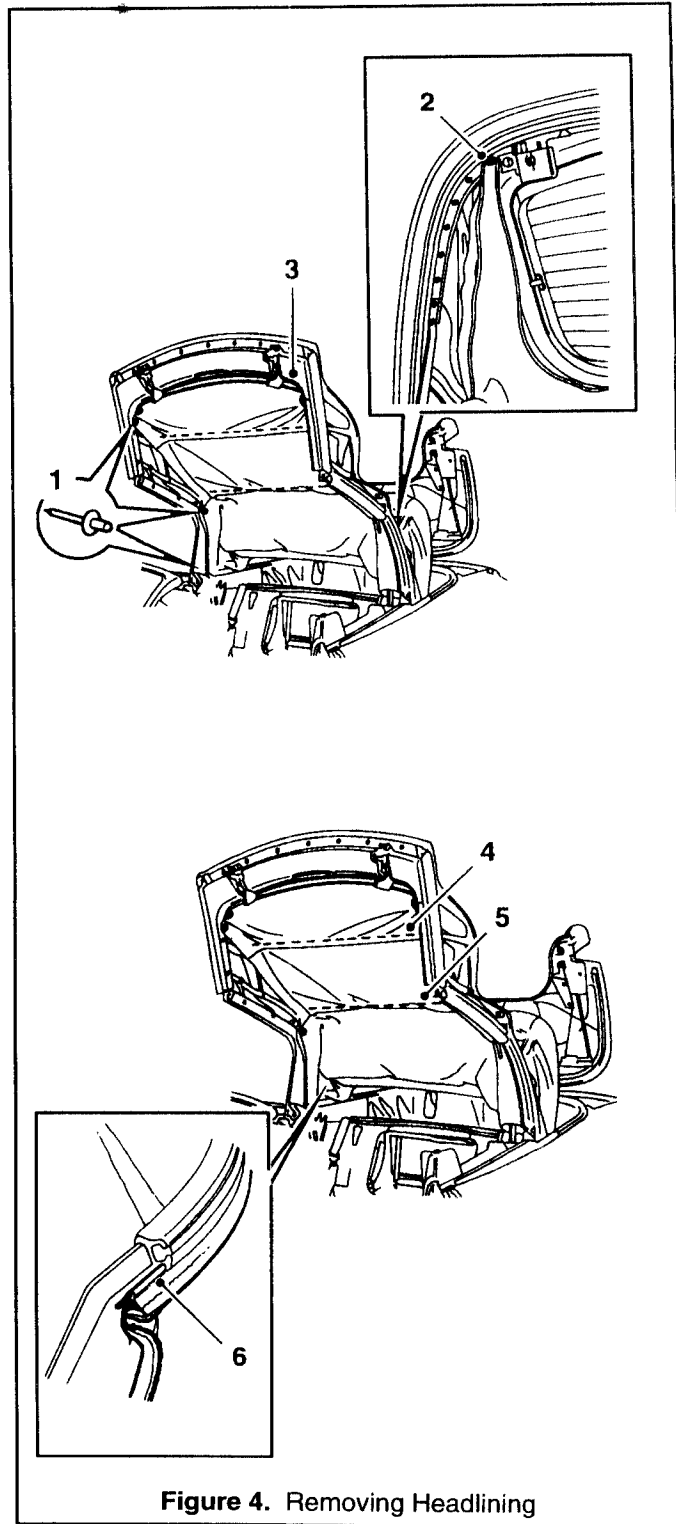
Top with rear window mounted with clips: Undo the screws securing the headlining.
2. Top with glued rear window: Remove the screws securing the rear of the headlining.
3. Detach the headlining from the Velcro strips.

See Figure 4.

4. Mark the positions at the ends of the headlining's retaining rails on the second bow. Then remove the strip securing the headlining to the second bow.
5. Mark the position of the ends of the headlining's retaining rails on the third bow. Then remove the strip securing the headlining to the third bow.
6. Remove the headlining's retaining strip from the fourth bow.

See Figure 4.

7. Lift out the headlining.



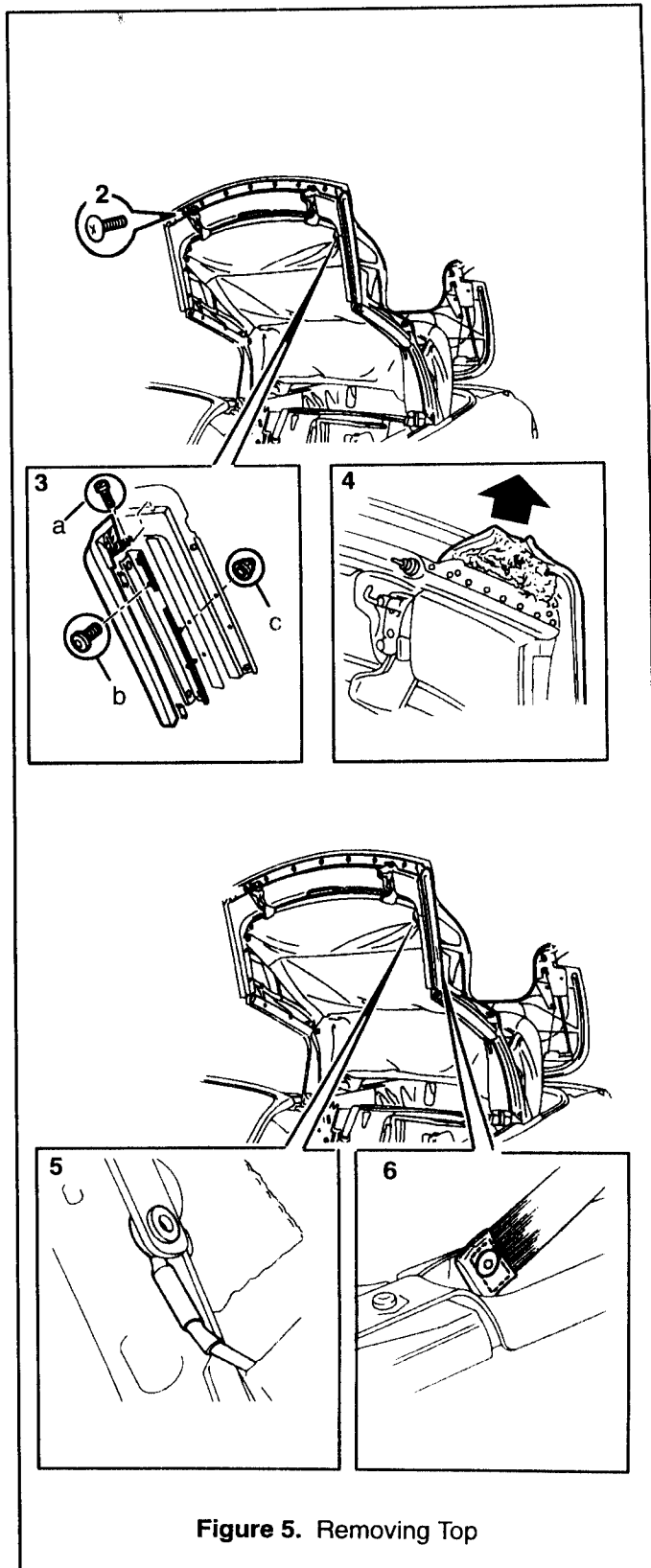
Top:

To remove:

WARNING!

There is always a danger of personal injuries occurring when working with the Convertible top. Take care.

1. Operate the top to the half-open position.
2. Remove the retaining strip.
3. Remove the front rail seals and seal holders.
(a) Ease the seal out of the retainer and remove the concealed screw (b). Mark the location of the 2 dome nuts so they can be put back in the same location. Remove the two dome nuts from the back (c).
4. Detach the top fabric from the first bow in the direction as indicated by the arrow.



5. Drill out the pop rivets securing the wires in the top fabric.
6. Drill out the pop rivets securing the front side elastic strips to the front rails.

See Figure 5.

7. Detach the top cover from the second bow.

8. Drill out the pop rivets securing the rear side elastic straps to the middle rails.
9. Detach the top cover from the third bow.
10. Remove the rear rail seals. Mark the location of the screws as in Step 3 above.

See Figure 6.

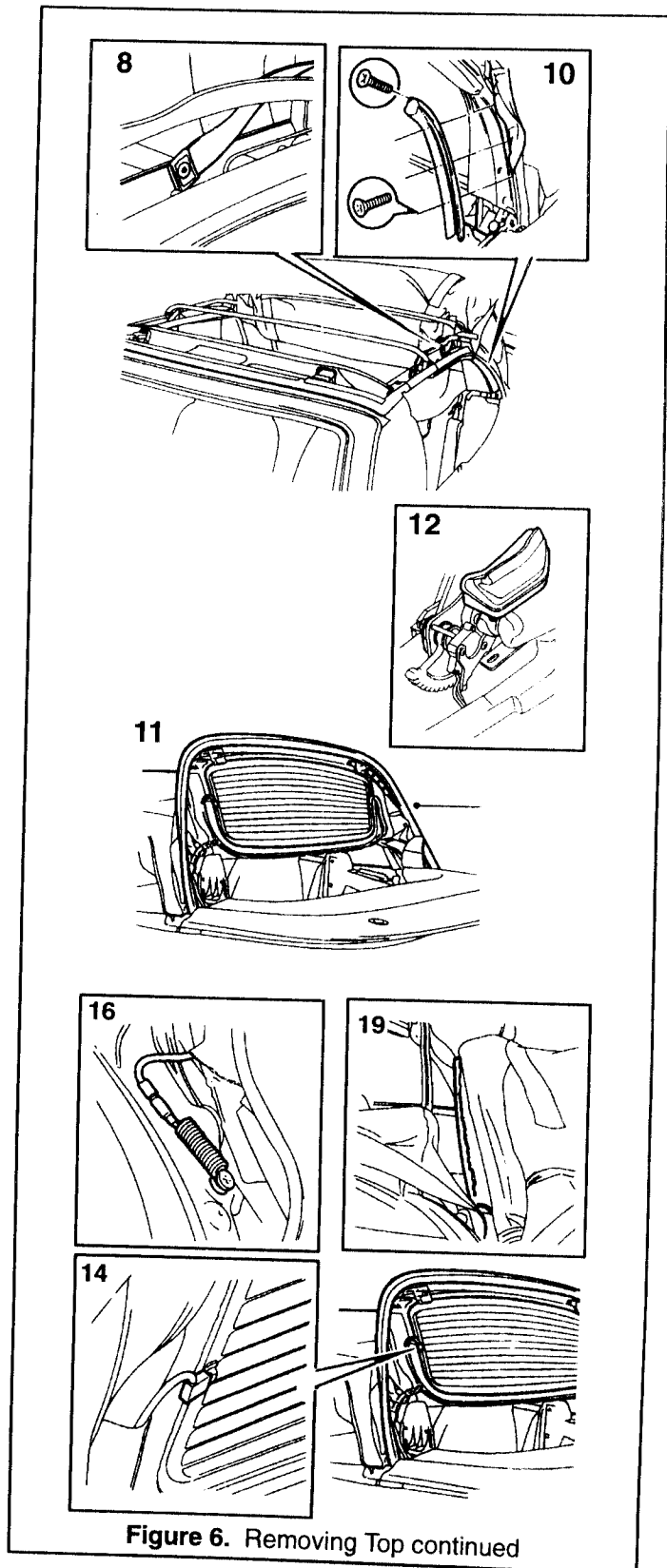


Figure 6. Removing Top continued

11. Raise top mechanism until the 5th bow is fully up-right.

See Figure 6.

12. Remove the covers below the rear rails.
13. Remove the fifth bow's seal.
14. Unplug the connector for the rear window heating and pull the leads through the top fabric.
15. Detach the top fabric from the fifth bow.

See Figure 6.

16. Withdraw the cables from the top fabric.
17. Detach the fabric from the rear rails.
18. Lower the 5th bow halfway.
19. Remove the felt strip covering the staples in the fourth bow.
20. Mark the center of the fourth bow and on that part of the top fabric which is stapled to the fourth bow. Then, remove the staples.

See Figure 6.

21. Lift the top fabric away.

To fit:

WARNING!

There is always a danger of personal injuries occurring when working with the Convertible top. Take care.

If the second bow is to be replaced, it must be done now, before the top is fitted. See Section 8:5 "Convertible" in Service Manual 8:5 Convertible.

The following method describes how to fit a top cover incorporating a clipped in rear window. If a top cover with glued rear window is to be installed, follow the directions in Service Manual 8:5 Cabriolet.

Important

Check whether the fifth bow has guides for the rear window. If these are missing, points 1-13 must first be carried out before the top fabric is fitted. See Figure 7b.

1. If fitted, remove the guide in the center of the 5th bow and clean off all traces of old glue. Use 3M adhesive remover 051135-08984.

See Figure 7a.

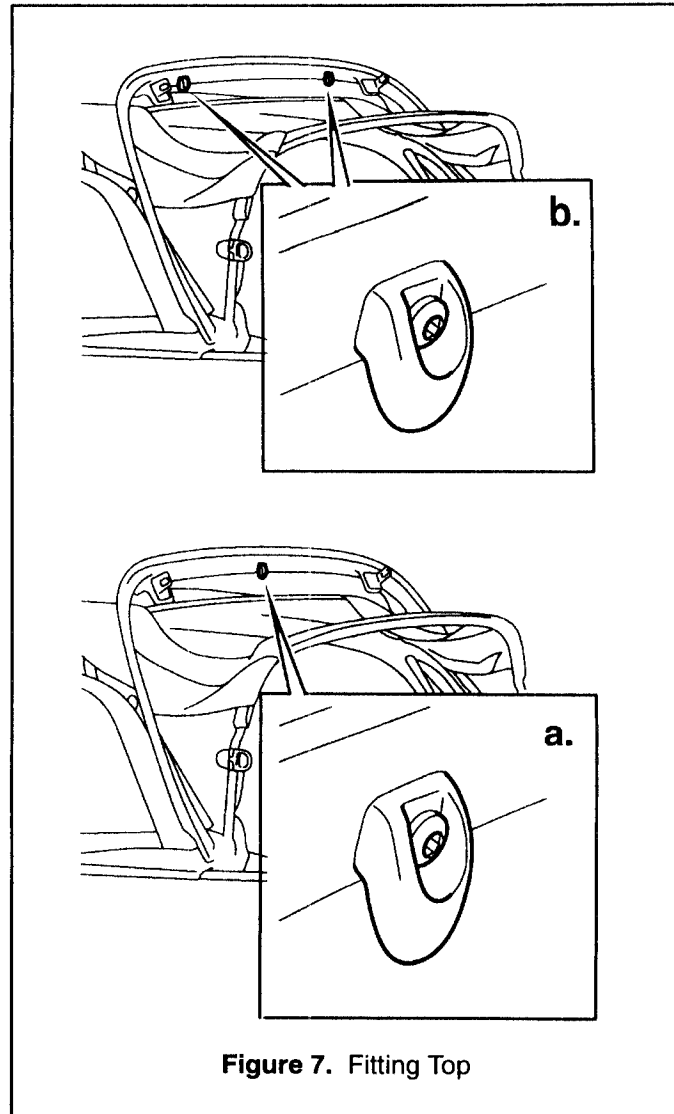


Figure 7. Fitting Top

2. Make marks 30cm from the center point where the rear window guides on the fifth bow are to be fitted. See Figure 8.
3. Drill two 5.0mm (13/64") holes where the marks are located. (Use new drill bits.) See Figure 8a. Cut threads in the holes using an M6 tap. Remove all burrs at the rear of the holes.

Important

Hold the drill on such an angle that the end of the screw will not protrude past the surface of the 5th bow or top cloth damage could result.

The holes must carefully be deburred or the top fabric will be damaged and cause water leakage as a result.

4. Apply Loctite (242 blue) to the screws and screw the guides in position. See Figure 8.

Important

Check that the tip of the screw does not protrude at the rear. If it does, the protruding part must be filed down.

5. Drill out the pop rivets in the existing stop plates on the fourth bow and remove them.
6. Enlarge the holes in the fourth bow and the new stop plates to 5mm (13/64"). Deburr.
7. Secure the stop plates with pop rivets and washers as shown. See Figure 8b. Fasten the wiring harness on the left-hand side with a cable tie.

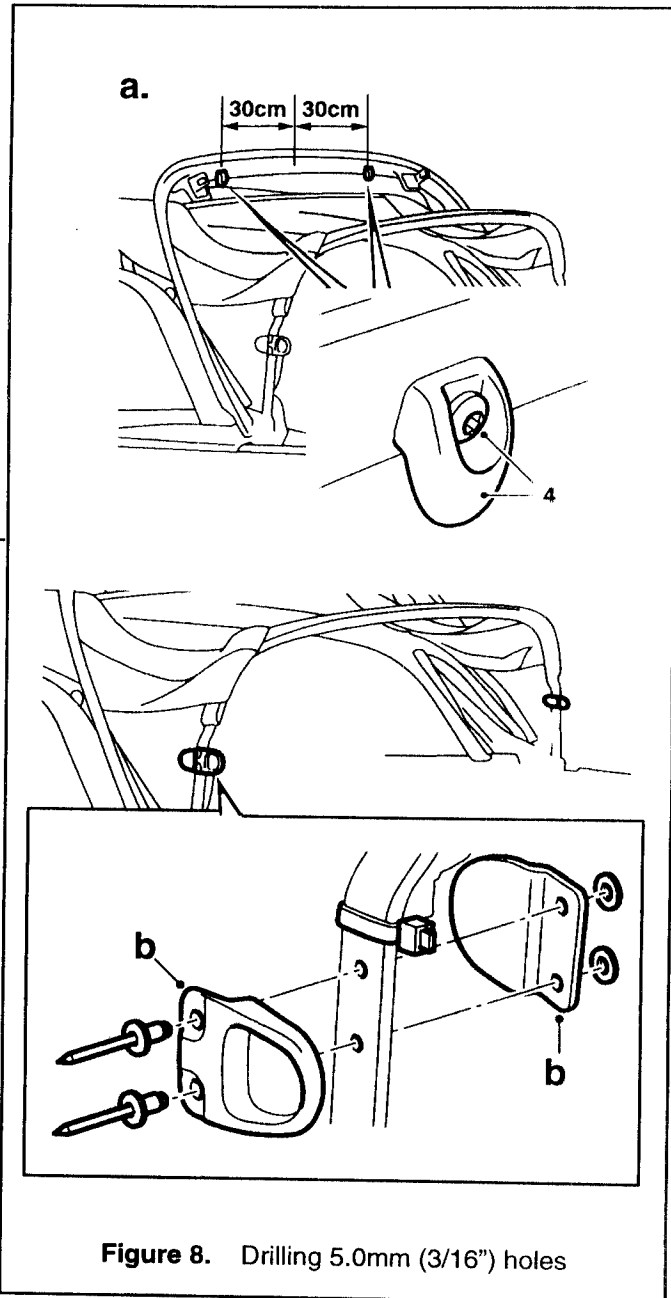


Figure 8. Drilling 5.0mm (3/16") holes

8. Remove the lower screws from the toothed segment's link for the fifth bow. See Figure 9.
9. Back off the two upper screws a few turns and insert a screwdriver between the fifth bow and the link so that it bends outwards. See Figure 9.
10. Mark the stop plate's lower retaining hole by measuring 135mm from the center of the upper screw. Then use the stop plate as a template for the upper retaining holes. Drill the holes using a 3mm (1/8") bit.
11. Screw the stop plates into position as shown. See Figure 9.
12. Apply Loctite to the screws securing the link to the fifth bow and tighten them.
13. Use a vacuum cleaner to remove all metallic shavings, etc. from the interior of the car.
14. Place a protective cover over the trunk lid.
15. Adjust the fourth bow down to its lowest position.
16. Place the top cover in position on the top frame. Make sure the top fabric fits around the fifth bow and around the rear rail's corners. See Figure 9.
17. Check that the center marks for the rear window are in line with the center hole on the 5th bow.
18. Use a clamp to secure the top at the midway point.
19. Make cuts in the cloth lip that is to be glued so that it fits better on the frame at the lower edge of the 4th bow and lower edge of the rear side rail. Use the frame as a template and make the cuts as shown. See Figure 9.

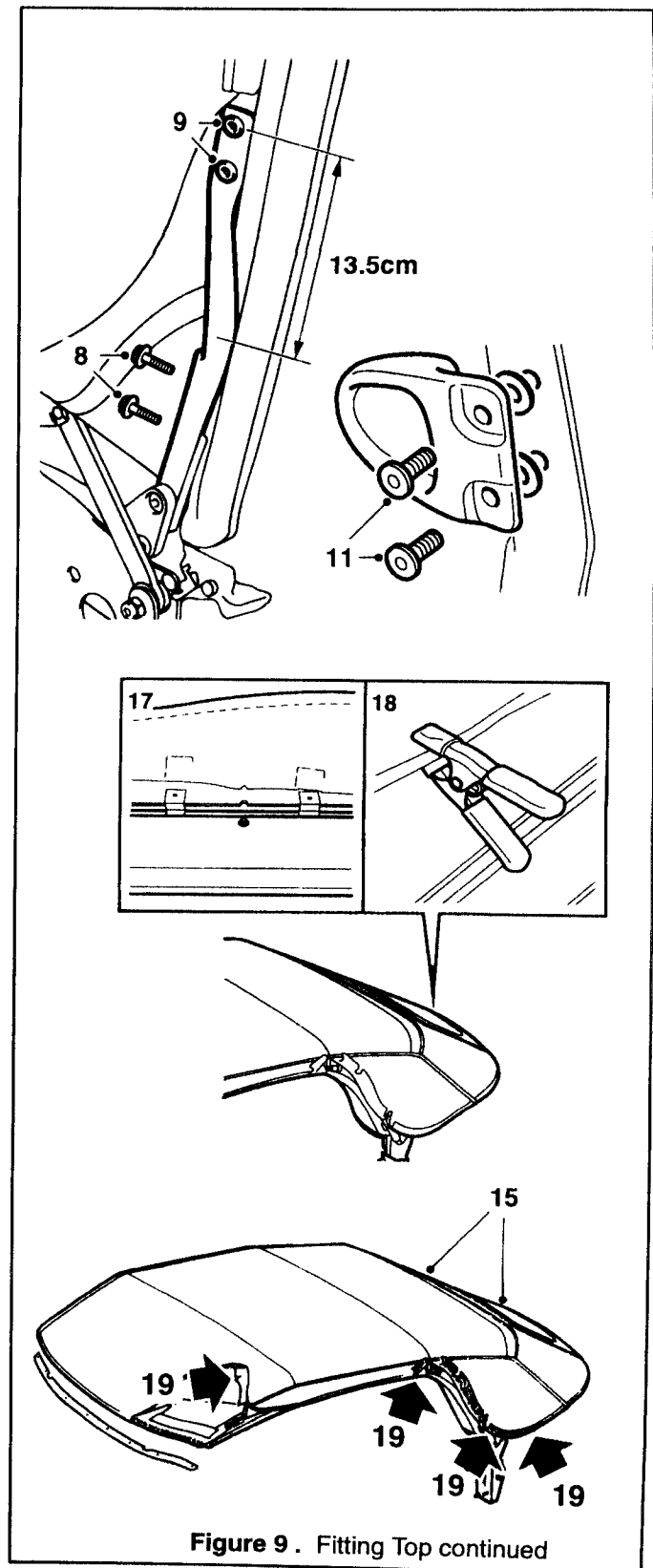


Figure 9 . Fitting Top continued

20. Glue the rear edge of the top fabric to the fifth bow as described below. Use 3M Super Weatherstrip Adhesive, P/N 02 45 779.
 - a. Start by gluing the top fabric to the fifth bow's corners.
 - b. Secure the top fabric to the corners of the top frame's rear rails before the adhesive on the fifth bow's corners has had time to dry. Use a clamp to hold the fabric in place at the corners. Otherwise, the top fabric might end up crooked.
 - c. Then glue the top fabric to the middle of the fifth bow.
 - d. Finally, glue the remainder of the rear end of top fabric to the fifth bow.

See Figure 10.

NOTE:

Allow the adhesive on the 5th bow to dry at least 30 minutes before proceeding.

21. Insert the wiring for the rear window heating element through the top fabric and plug in the connectors. See Figure 10.
22. Cut away surplus fabric around the fifth bow using a razor blade or carpet knife. Cut on the inside of the sealing strip's outer flange so that excess glue will be concealed by the 5th bow seal. Make sure that the flange for the 5th bow seal is visible. See Figure 10.
23. Press the sealing strip in place on the fifth bow. Smear soapy water on the seal to facilitate assembly. Do not use silicone or any other lubricant which can attract dirt and damage the Tonneau cover. Remove the clamps.
24. Raise the top fully so the fifth bow is locked in place.
25. Fold the top cover rearwards.
26. Secure the fourth bow to the third bow, using special tool P/N 82 93 045. The edge of the tool which enters the groove at the rear of the 4th bow may have to be filed slightly to fit. See Figure 10.

Important

It is imperative that the fourth bow is firmly secured so that it will not be displaced when the top cover is fitted.

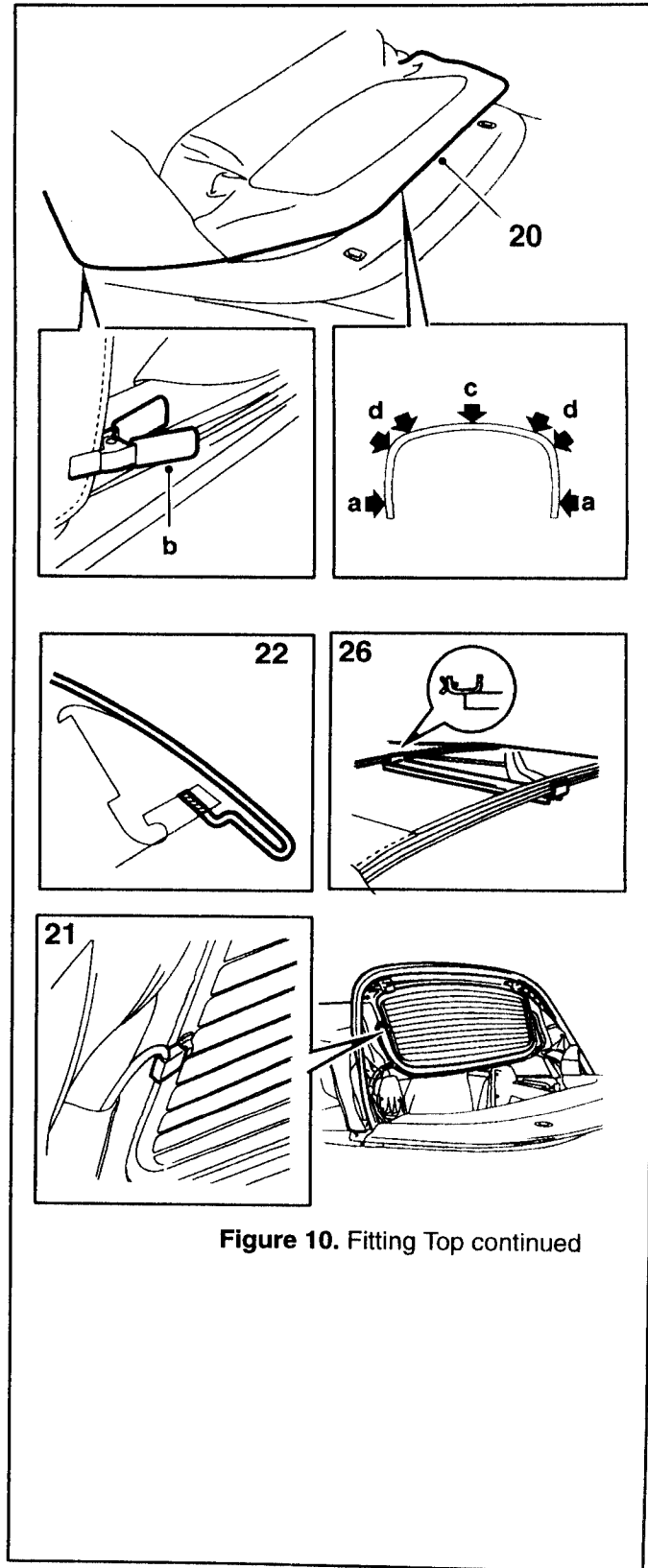


Figure 10. Fitting Top continued

- 27. Pull the top cover's fabric lip over the fourth bow and center it according to the marking. On new top covers the center is marked by a notch cut into the fabric. Tighten the fabric lip firmly and staple it in place. See Figure 12. Remove tool, P/N 82 93 045.
- 28. Fit the felt strip in place over the fourth bow using one staple to hold each end.
- 29. Fold the top fabric forward to the top frame's rear rails and make a cut in the back of the fabric at that corner so that it will fit better around the corner. Glue the fabric to the top frame's rear rails, using 3M Super Weatherstrip Adhesive. Hold the top fabric in place at the corners with clamps. Allow the adhesive to dry and then remove the clamps.

- 30. Fit the covers under the rear rail in place and tighten the nuts. See Figure 12.
- 31. Refit the rear rail seals. Cut away surplus fabric. See Figure 12.

- 32. Pull the wires out through the sides of the top fabric. See Figure 12.
- 33. Pop rivet the rear side elastic straps to the top frame's center rails. See Figure 10.

Important

The elastic strap should be pulled over the linkage.

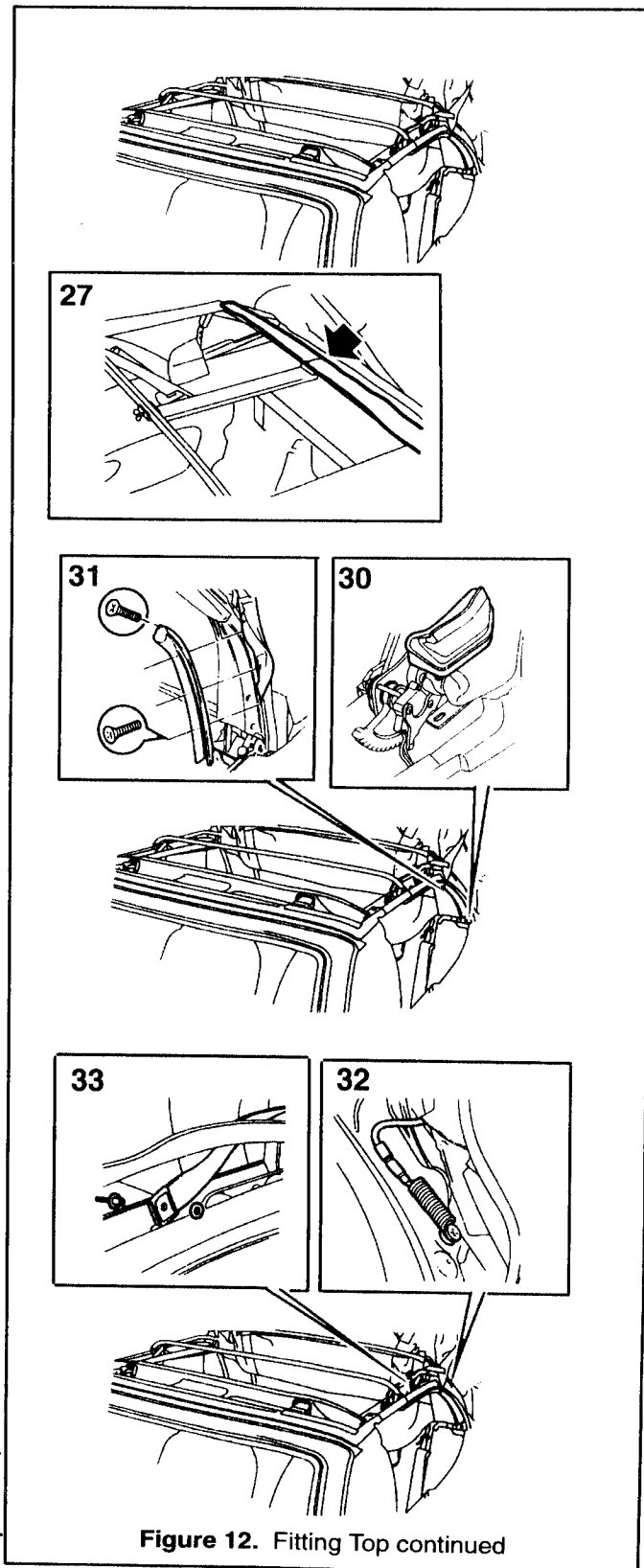


Figure 12. Fitting Top continued

- 34. Pop rivet the wires in place, flat side out. See Figure 13.
- 35. Glue the top cover to the first bow. Start at the corners. Apply adhesive to the lip and fold it down. Cut off the lip's surplus fabric as shown. Use 3M Super Weatherstrip Adhesive.
- 36. Screw the retaining strip to the first bow. See Figure 13.

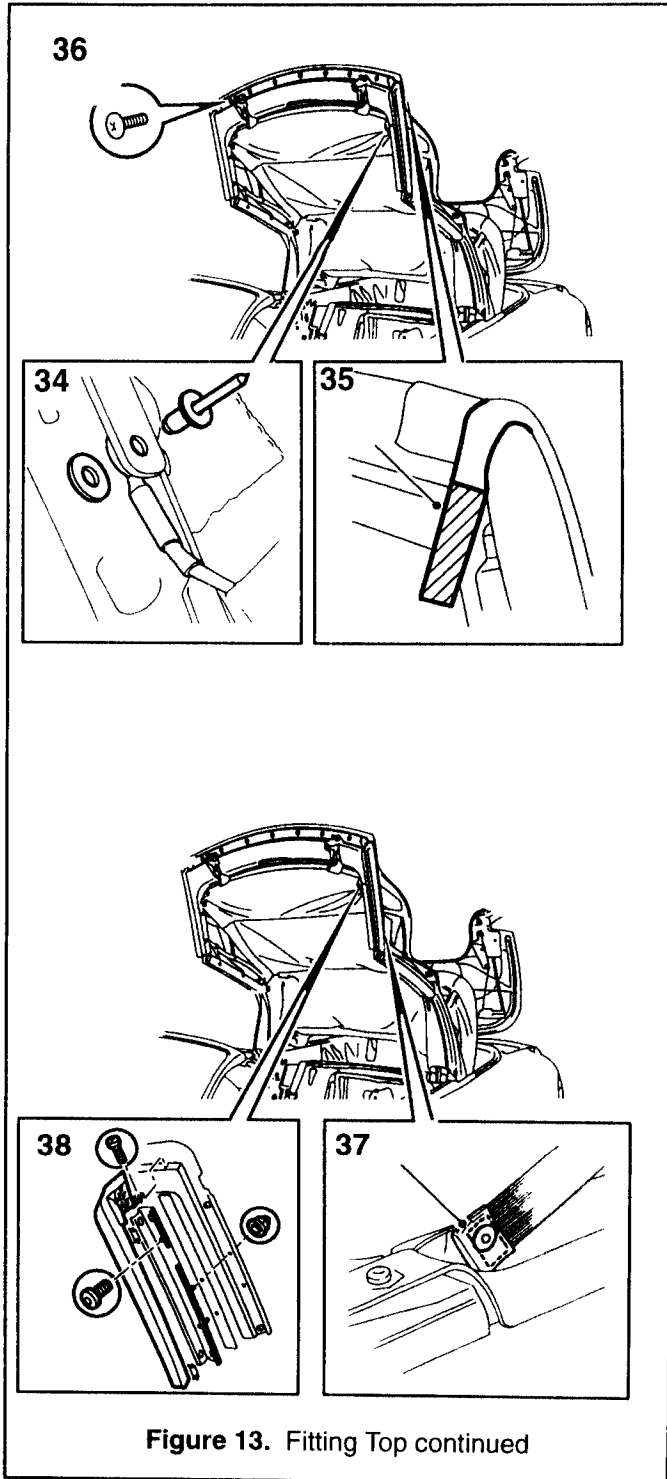


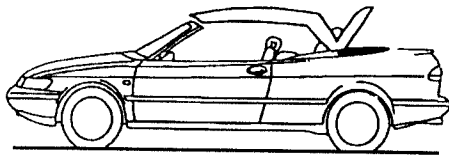
Figure 13. Fitting Top continued

- 37. Pop rivet the front side elastic straps to the top frame's front rails. See Figure 13.
- 38. Refit the front rail seal holders and seals. See Figure 13.
- 39. Secure the top cover to the third and second bows.

40. Check the fit at windows and seals. It may be necessary to adjust the second and fourth bows to ensure that the top is properly taut and so the door glass clears the top fabric when the doors are opened and closed.
41. To adjust the second bow, first remove its rubber stop. Loosen two of the linkage screws and fold back the linkage, thereby allowing better access for drilling. Drill a hole for the stop, 12mm deep, using a 3.5mm (9/64") drill.
42. Insert the square shim under the stop, and screw the stop in position using the longer screw from the parts kit.
43. Adjust the height of the fourth bow. See the adjustment procedure in Service Manual 8:5 Convertible.
44. Adjust the seals as necessary. See the "Adjustment" section in Service Manual 8:5 Cabriolet and the information listed below.

Important

Allow at least 4 hours for glue to dry, leaving 1st and 5th bow unlatched.



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45. Refit the headlining. See "Headlining" section below.
 46. Connect ISAT or Tech 2. Clear any diagnostic trouble codes and then program the control module. See PSI 04/97-0758.
 47. Check for leakage by hosing the top with water at an angle from above. Never use a high-pressure water supply.

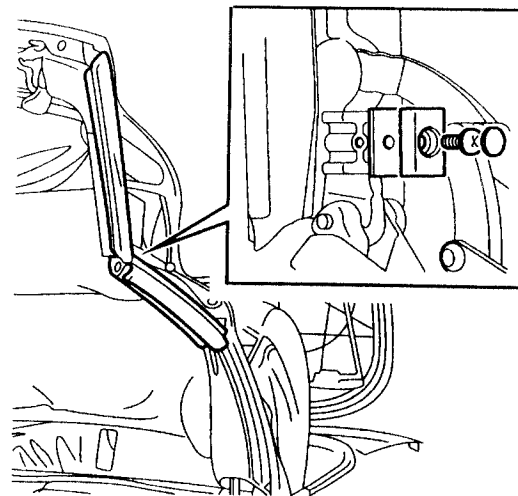
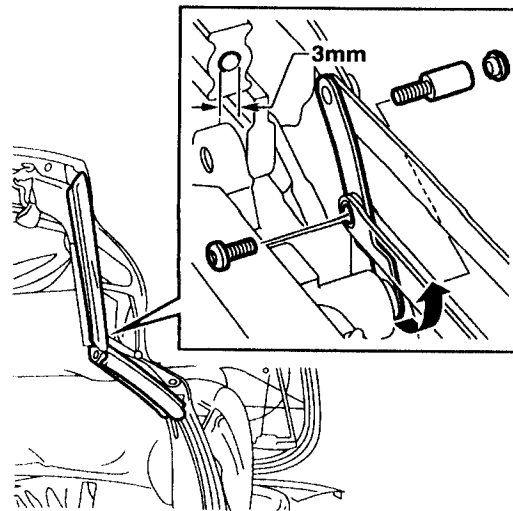


Figure 14. Adding shim to 2nd bow

Headlining-

To fit:

1. Lift the headlining into the car and insert the headlining's retaining strip into the fourth bow.
2. Align the headlining's retaining rails with the marking on the third bow and press into place the strip securing the headlining to the third bow.
3. Align the headlining's retaining rails with the marking in the second bow and press into place the strip securing the headlining to the second bow.

See Figure 15.

4. Press the front of the headlining into the Velcro strip.

Important:

The top must be folded all the way down when pressing this stiff Velcro together. Use the round end of a hammer and roll it into place.

See Figure 15.

5. Screw the headlining into place.

It is possible that after replacing the Convertible top, the door glass may hit the fabric of the top cloth between the 2nd and 3rd bows. Perform the following adjustments in the order in which they appear (order of preference):

1. Adjust the 4th bow by raising it to the highest position.
2. Adjust the upper rear corner of the front door windows by loosening the adjusting screw marked "2" on page 135 of the 1996 Section 8:5 Cabriolet service manual. Be careful not to lower the door glass so far that you create a water leak problem at the front corner.
3. Next, you can lower the whole window a small amount making sure that you maintain a good seal all the way around. If necessary, improve the contact against the seal by adjusting the inward angle of the door glass. Obtain some additional movement of the door glass by loosening the screws for the window regulator. If you loosen the stop "1" on the front door (see page 135 of the 1996 Section 8:5 Cabriolet service manual), and retorque it, after you lower and raise the window again the window will be 1mm higher.
4. Now adjust the rear windows for correct alignment with the front windows and good seal con-

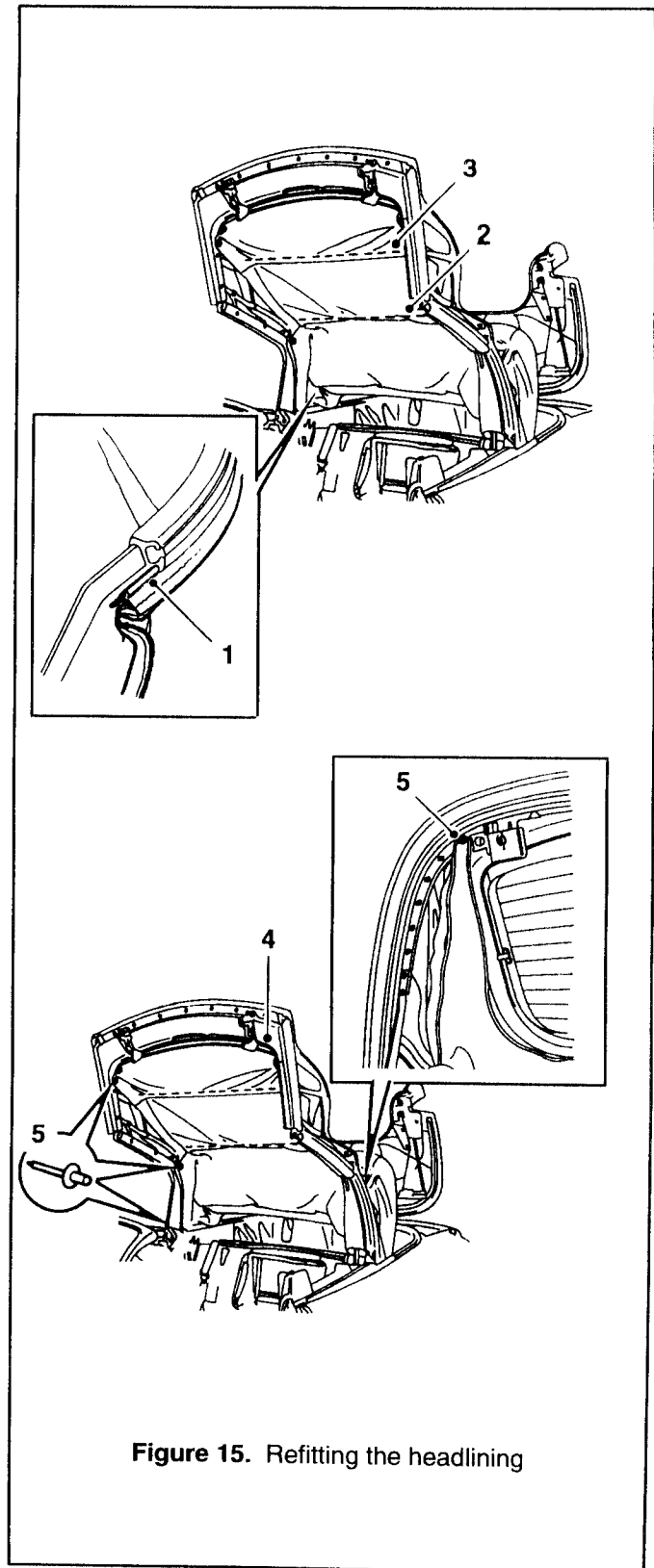


Figure 15. Refitting the headlining

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tact. The top of the rear window should be 1mm below the top of the front window and there should be a parallel 8mm gap from top to bottom between the front and rear windows at the sash seal.

When you have completed these adjustments, perform a water test for leaks. Also, with the top latched in place, wet down the complete top if the cloth is very tight. This will help it to stretch.

If water leaks are detected, see PSI 04/97–0755.

Warranty Information:

To resolve a customer complaint for a vehicle in warranty, submit a claim using the following information:

Failed part: 81111
Reason: XX (Use actual reason code for the defect)
Location: 0
Coverage Type: 01
Type of Repair: 01

Labor Operation: 81111 3.2 hrs. (Replace Top Fabric)
Labor Operation: 81107 0.5 hrs. (Program Top)

*If necessary, add operation

83524 0.8 hrs. Adjust c.v. left windows
83525 0.8 hrs. Adjust c.v. right windows

****Any straight time claimed must be supported by a separate time punch.**

The following must be added to your operation number table:

Operation Number: 83524
Description: Adjust CV windows, lft.
Trans. Type: B
Engine Type: 9
Diagnostic Code: 0
M94– 900 Only
Begin Yr.: 95
End Yr.: 98
.8 hrs.

Operation Number: 83525
Description: Adjust CV windows, rt.
Trans. Type: B
Engine Type: 9
Diagnostic Code: 0
M94– 900 Only
Begin Yr.: 95
End Yr.: 98
.8 hrs.