

# 1966 FISHER BODY SERVICE MANUAL

FOR ALL  
BODY STYLES

This publication contains the essential removal, installation, adjustment and maintenance procedures for servicing all 1966 Fisher Body Styles. All information, illustrations, and specifications contained in this publication are based on the latest product information available at the time of publication approval. The right is reserved to make changes at any time without notice.

Arrangement of the material is shown by the table of contents on the right-hand side of this page. Black tabs on the first page of each section can be seen on the edge of the book below the section title. A more detailed table of contents precedes each section, and an alphabetical index is included in the back of the manual.

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PART NO. 4226635

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# SECTION 6

## FOLDING TOP

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## FOLDING TOP TRIM ASSEMBLY (COMPLETE)

All convertible top trim cover assemblies incorporate a spring-loaded top material hold-down cable along the right and left side roof rails. The cables are installed through a retaining pocket in the top material and are fastened at the front and rear side rails by attaching screws. The cables are designed to hold the top material tight against the side roof rail stay pads, thus minimizing air leakage between the top material and the stay pads.

All dropping back curtain assemblies incorporate, as an integral part of the back curtain upper valance, an elastic webbing. The elastic webbing is located in the upper corners of the back curtain. The elastic webbing reduces tension on the zipper assembly at the radius, providing improved zipper operation.

On certain styles the back curtain assemblies in-

corporate a hard, curved glass back window. This back window is dielectrically bonded to the vinyl back curtain material and is not serviced as a separate item. On other styles, the back curtain incorporates a pliable plastic window.

### REMOVAL OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

1. Place protective covers on all exposed panels which may be contacted during procedure.
2. Remove rear seat cushion and back.

**CAUTION:** Disconnect rear seat speaker wire if present.

3. Remove right and left folding top compartment side trim panels.

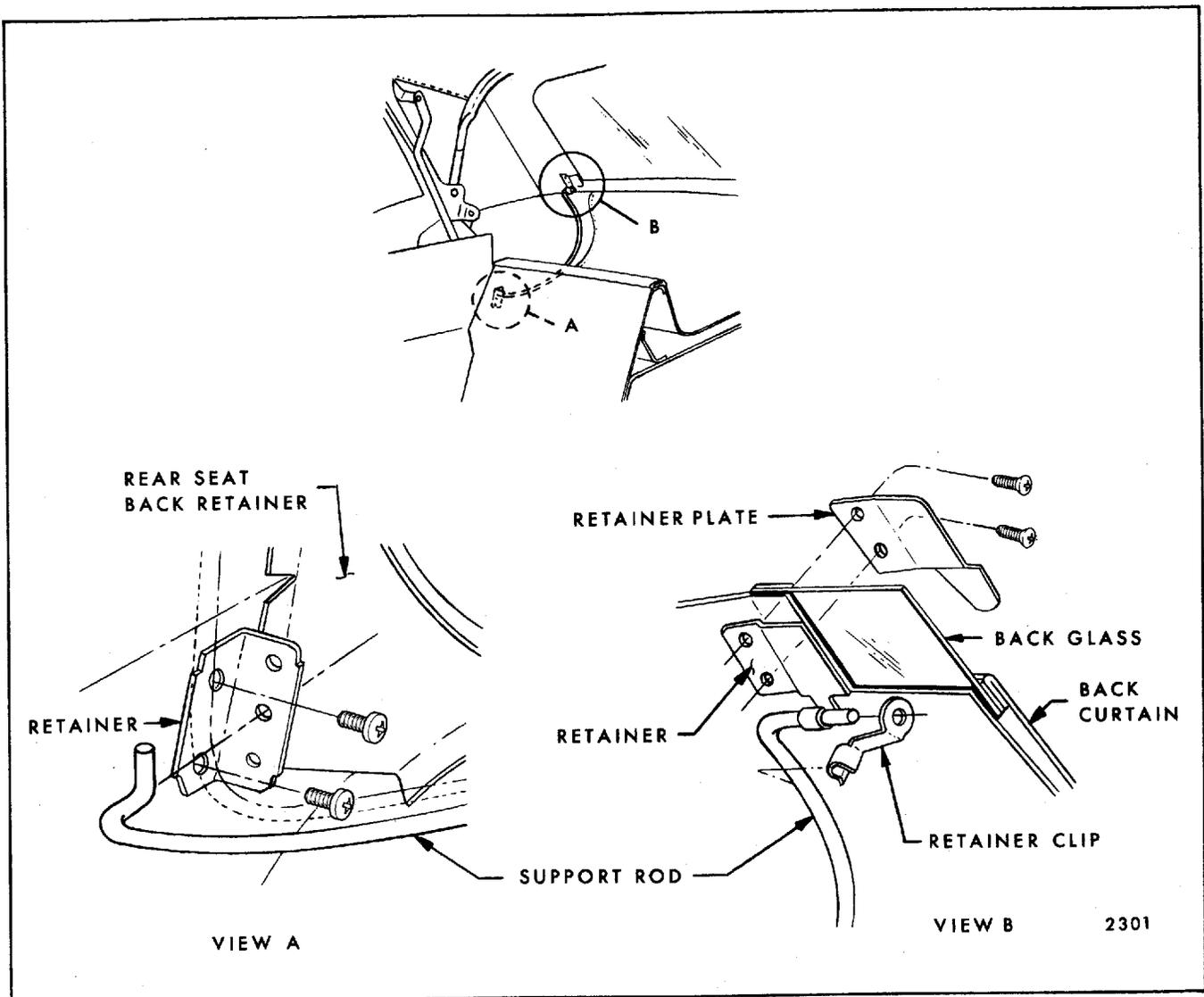


Fig. 6-1—"B &amp; C" Body Back Glass Support Rod Attachments

4. Remove right and left side roof rail rear weatherstrip attaching screws; then remove weatherstrips from rails.
5. Detach folding top quarter flaps from side roof rear rails.
6. On styles equipped with back glass support rods, disengage right and left rods from back curtain (Fig. 6-1).
7. Lower top to "stacked" position.
8. Remove remaining side roof rail weatherstrip attaching screws; then remove weatherstrips from rails.
9. Remove front roof rail front and rear weatherstrips.
10. Detach top material from front roof rail (Fig. 6-2).
11. Detach top material flaps from side roof front rail (Fig. 6-2).
12. Raise top and lock to windshield header.
13. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws. (See Views "A and B" in Fig. 6-3.)
14. Pull both hold-down cables forward until cables are completely removed from top material retaining pockets.
15. At underside of front bow, remove screws securing listing pocket retainer to bow (Fig. 6-4).

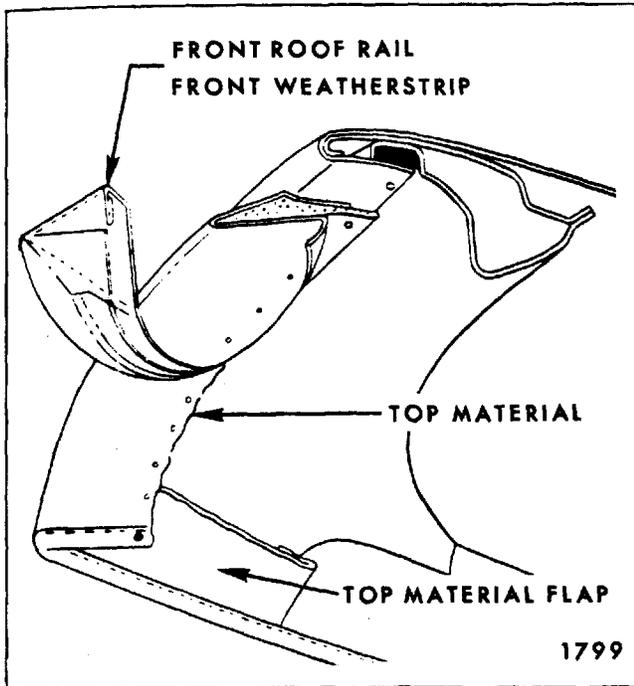


Fig. 6-2—Top Material At Front Roof Rail

16. Push top material upward sufficiently until retainer is disengaged from bow; then remove retainer from listing pocket.
17. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 6-5).
18. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 6-6).
19. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel
20. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 6-7). Reference marks should be transferred to new back curtain when step 6 of installation procedure is performed.

**NOTE:** Reference marks must be made below upper edge of rear trim stick.

21. To establish relationship of old top material to its position on rear trim sticks. Cut selvage

end of top material off flush with lower edge of trim sticks.

**CAUTION:** When cutting top material, be careful not to cut lower selvage edge of back curtain assembly.

22. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material (Fig. 6-8). Reference marks for trim sticks should be transferred to new top material when step 28 of installation procedure is performed.
23. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow. Detach top material from rear roof bow and from trim sticks, then remove top cover assembly (Fig. 6-9).
24. Lock top to windshield header. Install radius end of each adjustable spacer stick to fit against center roof bow. Install opposite end of spacer stick so that metal plate fits under rear roof bow. Spacer sticks should be installed along inboard edge of side stay pad (Fig. 6-10).

**NOTE:** The approximate dimension for location of spacer sticks, measuring outboard from centerline dimple of rear roof bow, is 19-3/4" for "B & C" Body Styles, 15-1/2" for "Z" Body Styles and 19-11/16" for "A" Body Styles. (See Dimension "Y" in Fig. 6-10.)

While exerting rearward pressure on rear bow to draw side stay pads taut, extend spacer sticks until they fit snugly between center bow and rear roof bow, then tighten wing nuts.

25. Spacer sticks may be fabricated as shown in Figure 6-11.
26. Temporarily tie or tape rear bow to rear side roof rails. (See Fig. 6-10.) Detach nylon webbing, side stay pads and back curtain assembly from rear bow.
27. Remove rear trim stick with attached back curtain assembly and top compartment bag from body and place on clean, protected surface.
28. Remove right and left nylon webbing from rear trim stick on styles so equipped.
29. Using chalk, or other suitable material, mark ends of rear quarter trim sticks on vinyl surface of back curtain material (Fig. 6-12). Reference marks for trim sticks should be

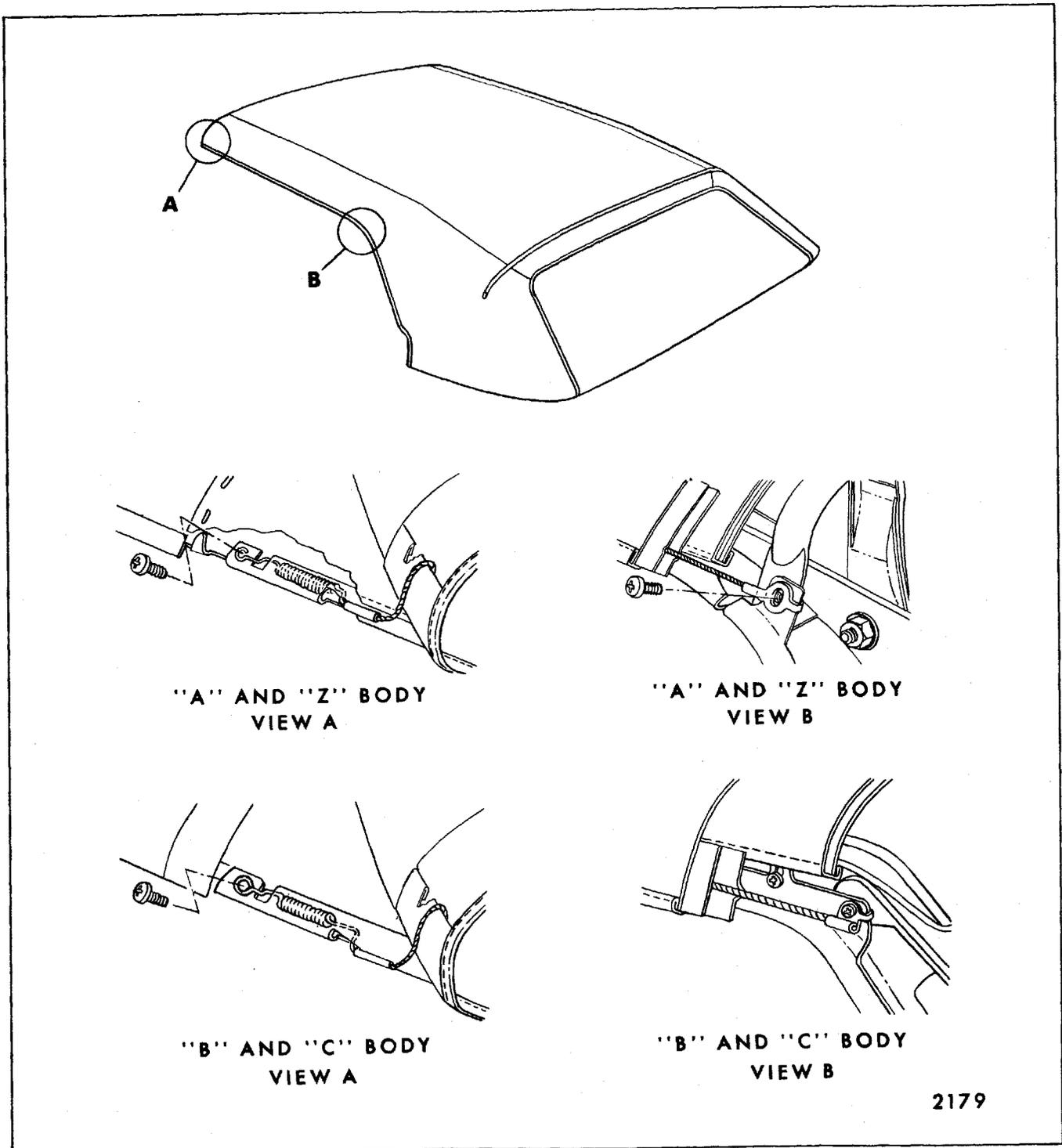


Fig. 6-3—Convertible Top Material Hold Down Cable

transferred to new back curtain material when step 6 of installation procedure is performed.

30. Remove back curtain assembly from rear and rear quarter trim sticks.
31. Remove side stay pads. Stay pads are attached to front roof rail and front and rear bows with tacks; to center bow with screws.

### INSTALLATION OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

1. If new top is being installed but it was impossible to perform step 24 of removal procedure, pre-set spacer sticks to shortest length and install between center and rear roof bow (Fig. 6-10). Adjust sticks so that

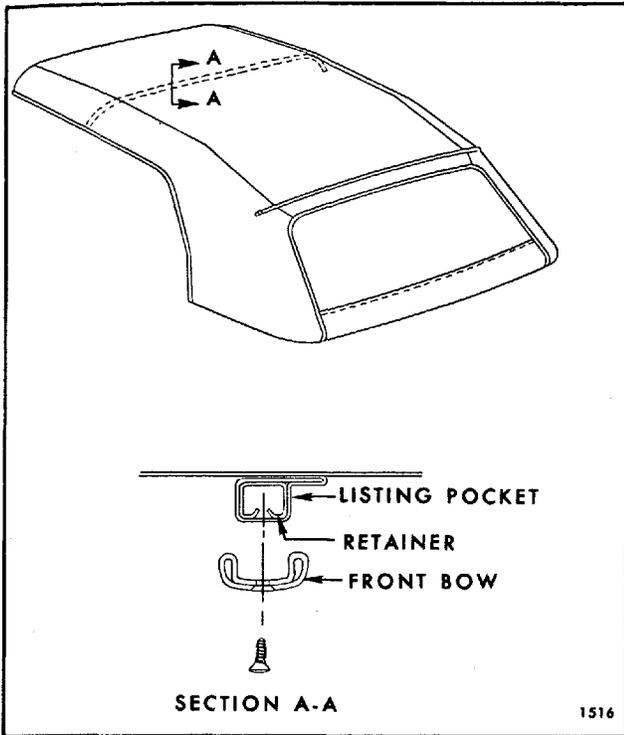


Fig. 6-4—Listing Pocket Retainer

dimension "X" in Figure 6-10 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 14-7/8" on "B & C" Styles, 16-5/8" on "Z" Styles and 16-1/64" on "A" Styles. Tie or tape rear bow to rear side roof rails.

**NOTE:** In all cases, above dimension may be changed slightly within tolerances to correspond

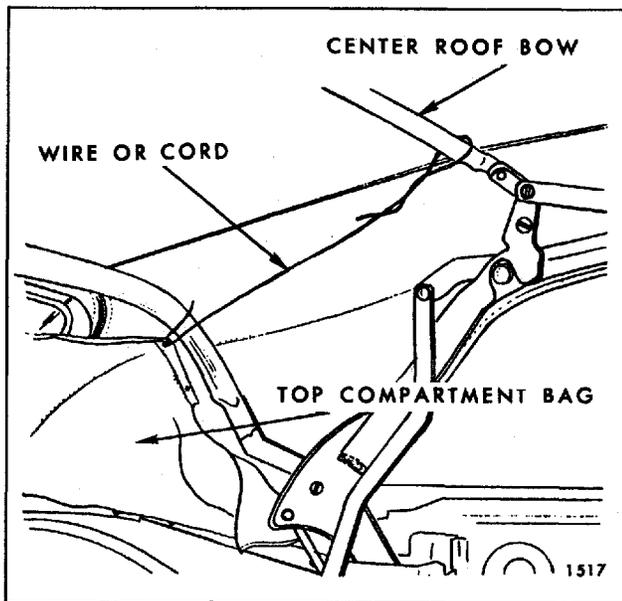


Fig. 6-5—Top Compartment Bag Tied To Center Bow

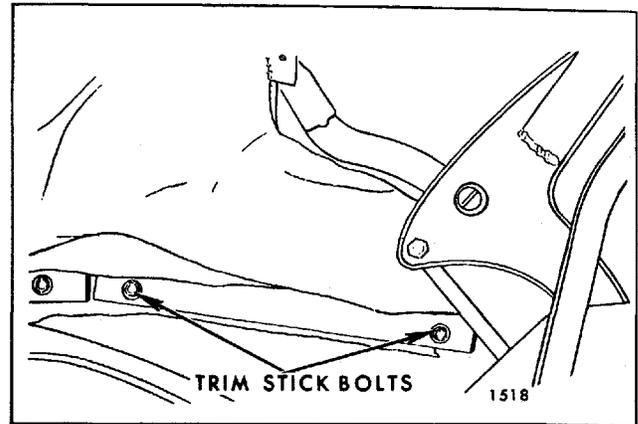


Fig. 6-6—Rear Quarter Trim Stick

with new top after tryout. Dimension should be equal on both right and left sides.

2. Tack side stay pads in conventional manner to rear roof bow and stay tack pads to front roof rail. Make sure inboard edge of pad is properly aligned within depressions in bow and rail. Stay tack pad to front bow. Install pad to center bow with screws. Make sure inboard edge of pad is properly aligned within depression in bow. Install stay pad wadding in conventional manner using an approved trim cement. (Fig. 6-13 for "A" Body, Fig. 6-14 for "B" Body, Fig. 6-15 for "C" Body and Fig. 6-16 for "Z" Body.)

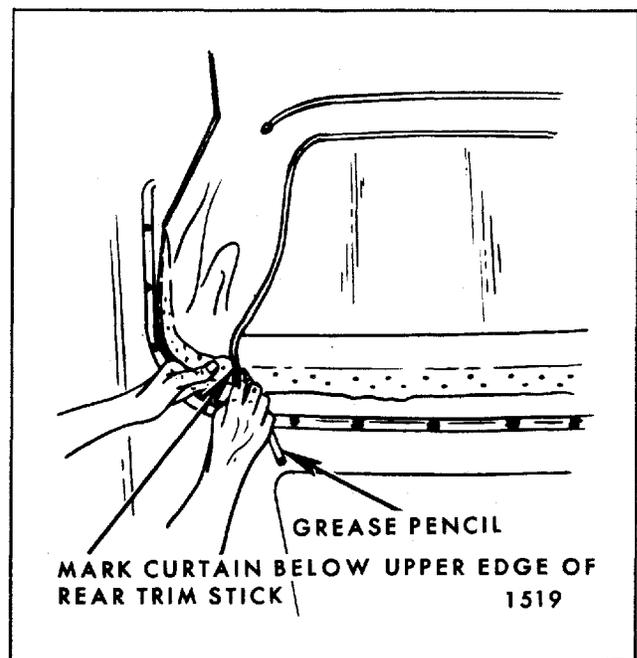


Fig. 6-7—Locating Edge of Top Material

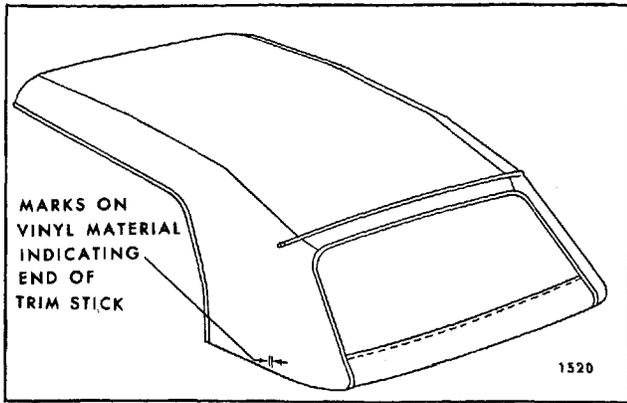


Fig. 6-8—Marking Top Material

3. Trim salvage end of side stay pads just forward of rear rolled edge of rear roof bow (Fig. 6-13 for "A" Body, Fig. 6-14 for "B" Body, Fig. 6-15 for "C" Body and Fig. 6-16 for "Z" Body).
4. Distance from center of center bow to rolled forward upper edge of rear roof bow is 14-7/8" for "B & C" Styles, 16-5/8" for "Z" Styles and 16-1/64" for "A" Styles.

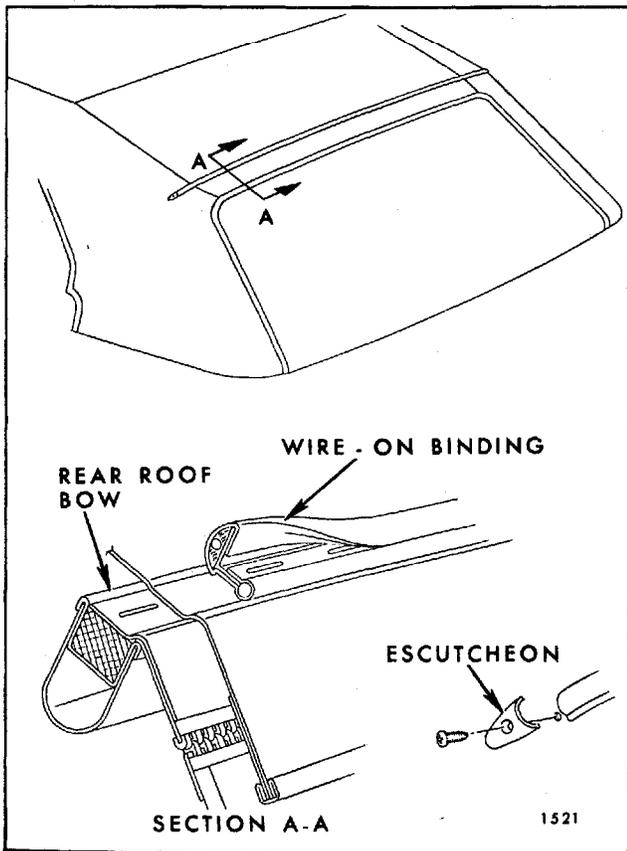


Fig. 6-9—Rear Roof Bow Wire-On Binding

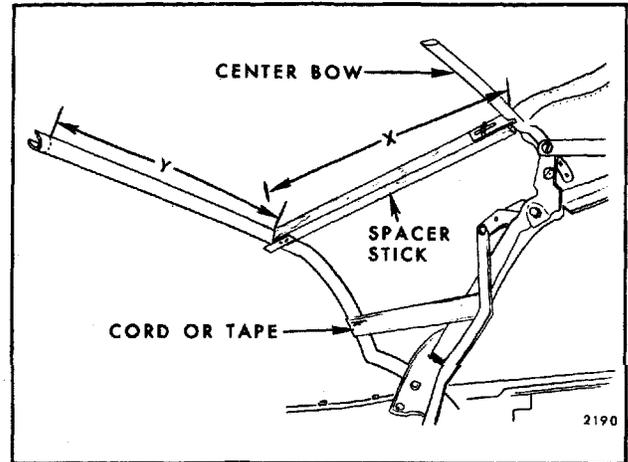


Fig. 6-10—Spacer Stick Installation

**NOTE:** Dimension may vary  $\pm 1/4$ " after back curtain has been completely installed. Readjust spacer sticks and side roof rail pads as required if rear bow does not come within this position range.

5. Place new back curtain assembly on clean covered work bench with interior surface of back window facing down.

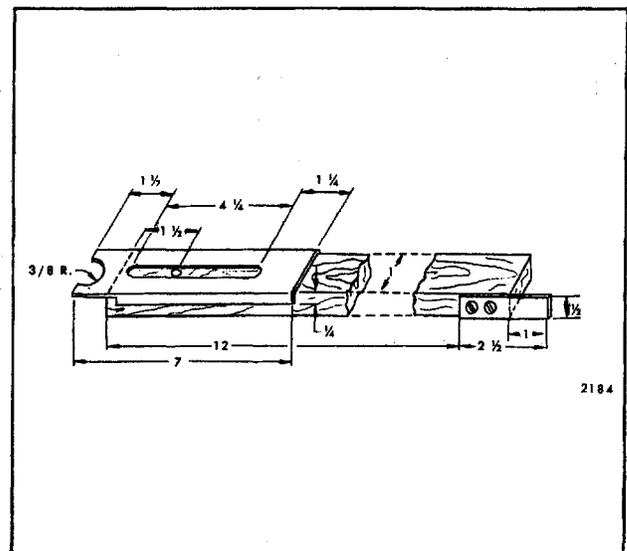
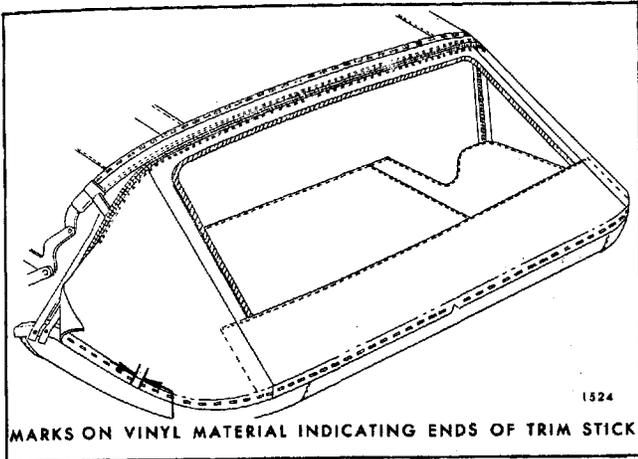


Fig. 6-11—Spacer Stick Dimensions

**MATERIAL PER STICK**

- Wood - 1/2 x 1 x 14-1/2
- Steel - 1/32 x 1/2 x 2-1/2
- Steel - 1/32 x 1-1/2 x 7
- 2 Screw #6 x 1/2"
- Bolt 1/4 - 20 UNC - 2A x 1"
- Wingnut 1/4 x 20 UNC - 2B
- 2 Washers 1/4" I.D.



MARKS ON VINYL MATERIAL INDICATING ENDS OF TRIM STICK

Fig. 6-12—Marking Back Curtain

- Carefully lay removed back curtain assembly over new back curtain assembly. Using a grease pencil, mark vinyl surface of new back curtain using marked edge of old curtain as guide. (See steps 20 and 29 of removal procedure.) In addition, mark trim stick bolt hole locations on new back curtain assembly.

**IMPORTANT:** Where a grease pencil or similar material is used for marking back curtain, marks must be below trim stick so that they will not show after curtain is installed in body.

- Center and position back curtain assembly to rear trim stick over attached top compartment bag.

**NOTE:** Notch in back curtain material at lower edge indicates centerline of back curtain assembly (Fig. 6-17). In addition, back curtain lower

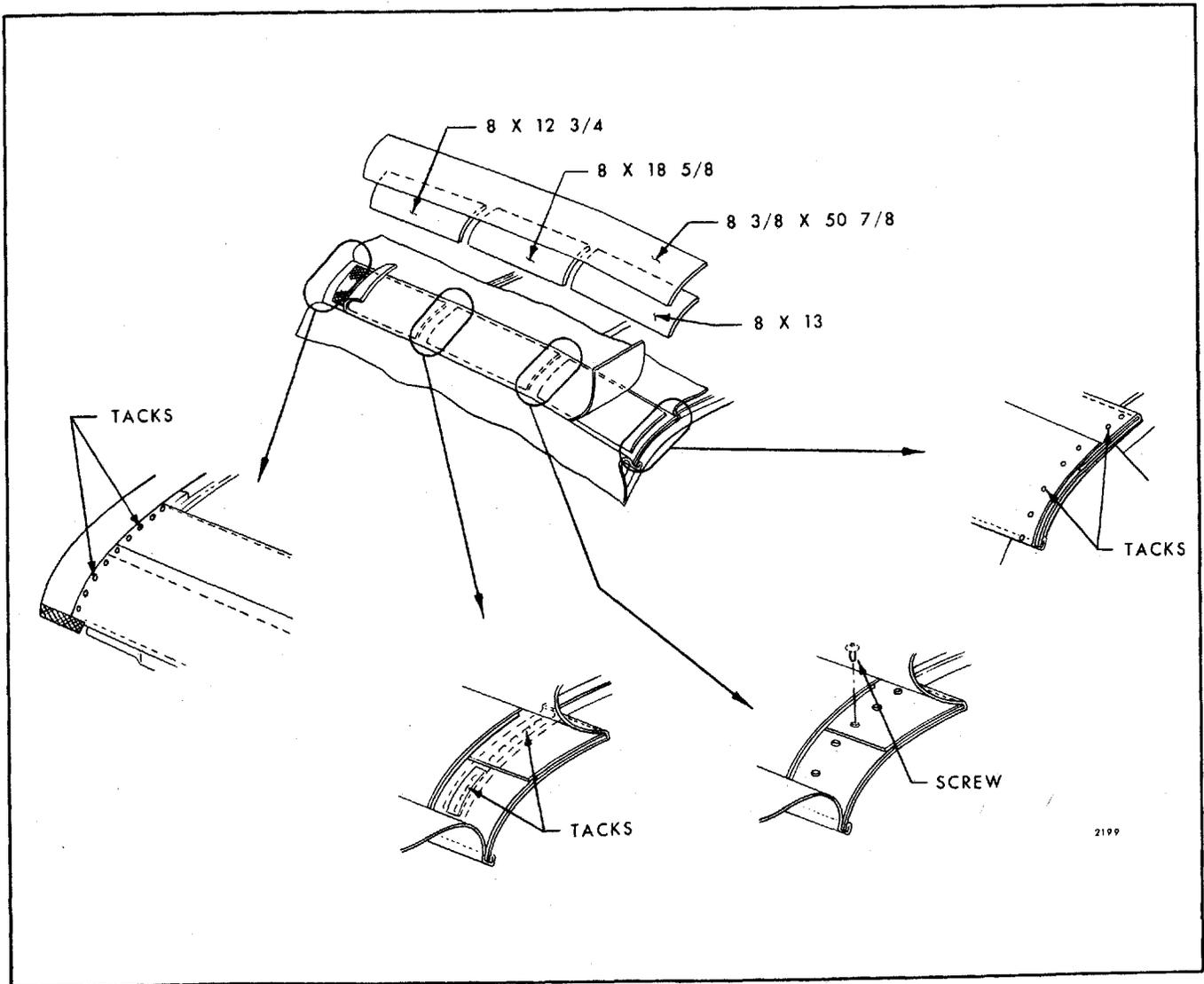


Fig. 6-13—"A". Body Side Stay Pad Installation

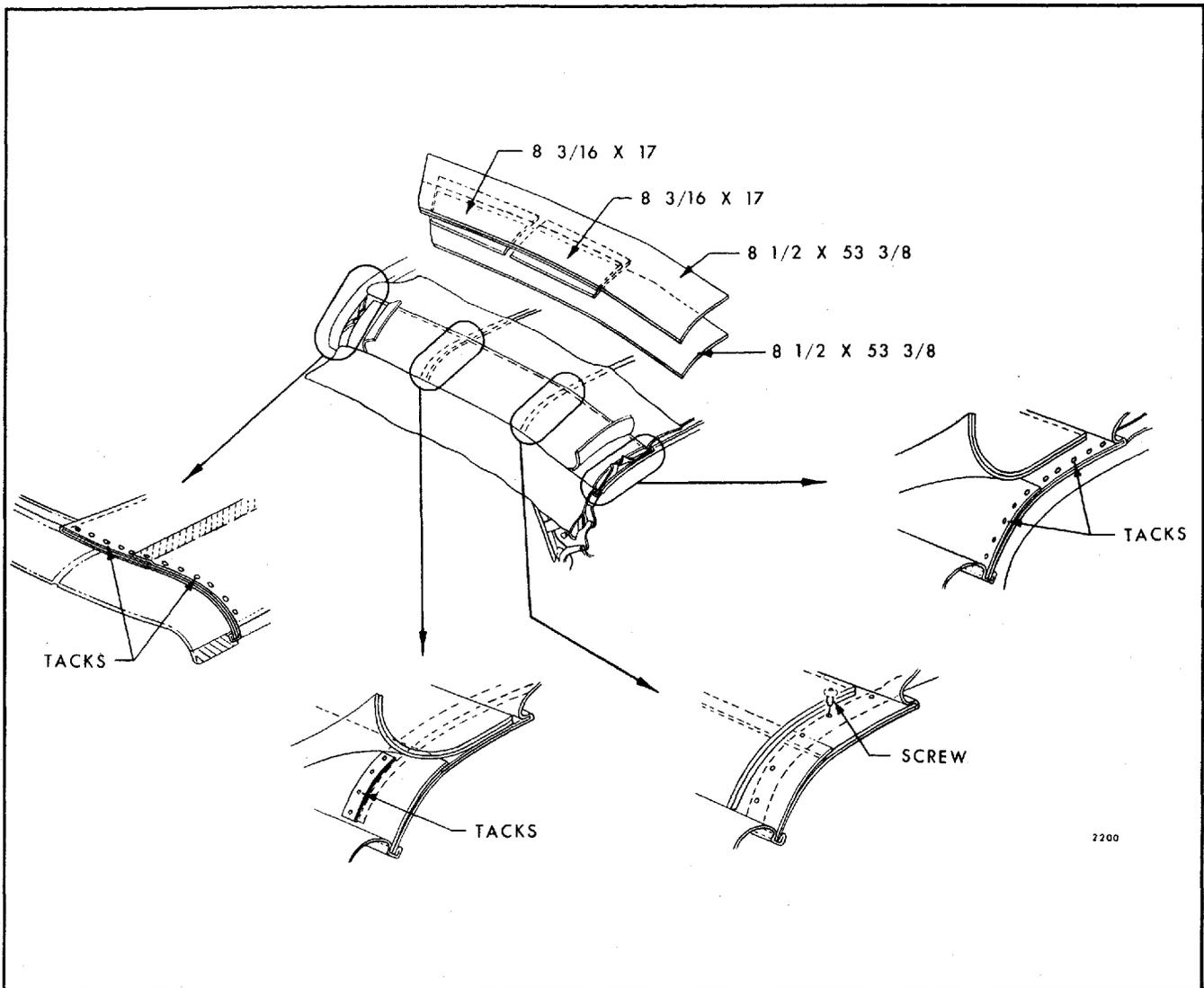


Fig. 6-14—"B" Body Side Stay Pad Installation

edge should extend approximately 1/2" below lower edge of trim sticks.

8. Tack curtain to rear and rear quarter trim sticks (Fig. 6-17). On "A & Z" Body Styles only, tack zipper tape on right side to forward edge of rear quarter trim stick (Fig. 6-18).

**NOTE:** Zipper stop should be above upper edge of rear quarter trim stick. Zipper tape should not be pulled taut after back curtain has been installed to rear roof bow as zipper assembly may show through top material after top has been properly installed.

9. Tack remainder of back curtain material to rear quarter trim stick.
10. Tacks securing back curtain assembly to trim sticks should be placed close to each side of

every bolt hole in trim sticks; then pierce or punch back curtain assembly for each trim stick bolt.

11. On all "B, C & A" Styles, tack nylon webbing to rear trim stick. Forward edge of webbing should be even with edge of rear trim stick. New webbing may be cut from a piece of non-staining type webbing 2" x 24" for "A" Bodies and 2" x 27" for "B & C" Bodies. Excess webbing should be trimmed off at rear trim stick, 1/2" above back curtain lower edge.
12. Inspect mastic type trim stick fillers to body below pinchweld for sufficient seal at bolt holes (Fig. 6-19).
13. On "B & C" Styles with dropping back curtains, fasten back curtain assist straps to rear roof bow; then secure back curtain assembly with

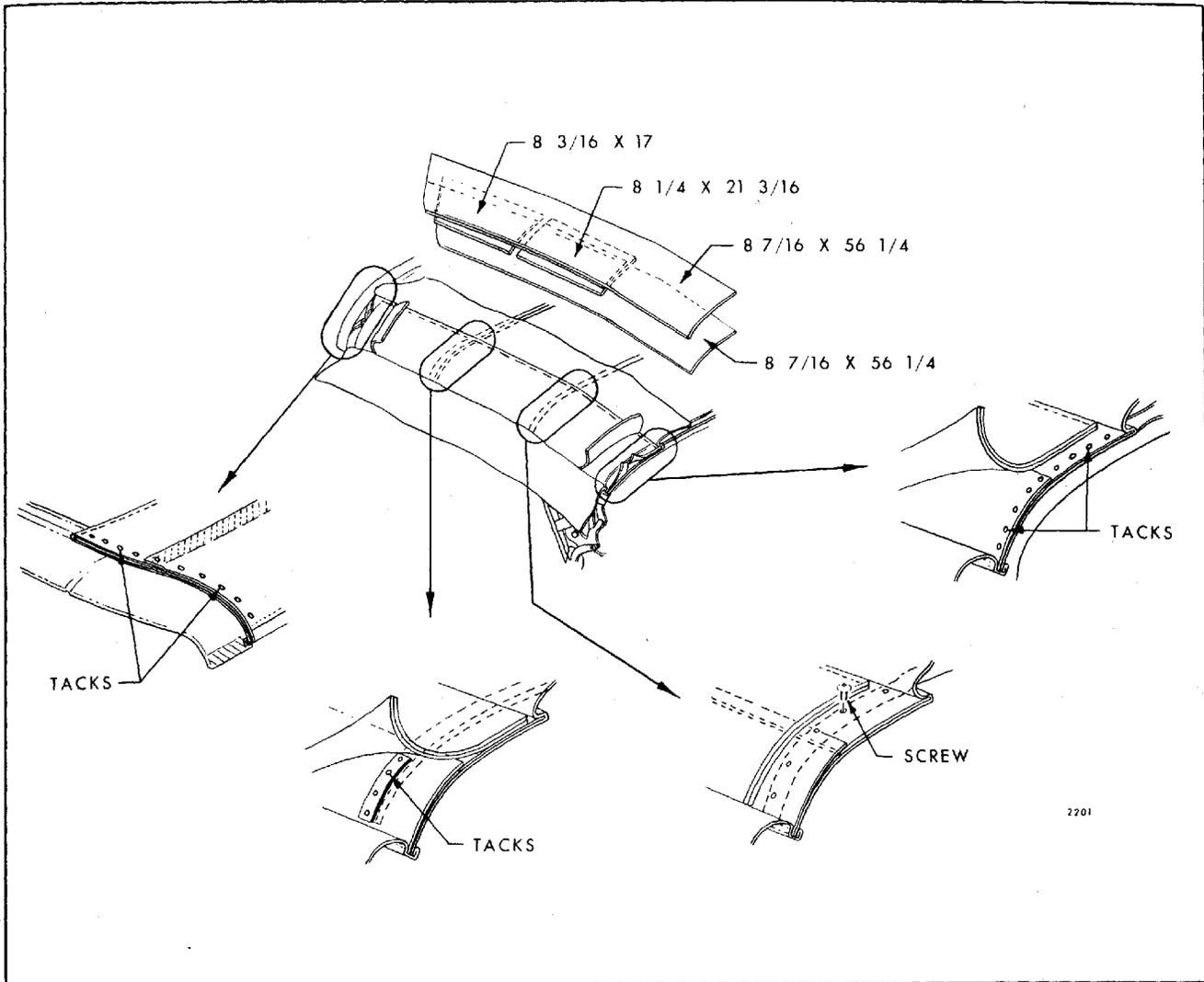


Fig. 6-15—"C" Body Side Stay Pad Installation

three or four tacks to rear bow to prevent accidental damage to back light. On all other styles secure back curtain with tacks to rear roof bow to prevent damage.

14. Install rear trim stick with attached back curtain assembly into body.

**NOTE:** Make sure that all trim stick bolts are driven completely in to represent finished condition.

15. Working from body center progressively out-board to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from curtain material (Fig. 6-20). Fold any excess back curtain upper valance material rearward and tack to rear bow.

**IMPORTANT:** Do not cut off excess upper valance material as material may unravel.

16. Check contour of back curtain assembly at rear roof bow and at pinchweld molding.
17. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly as required (Fig. 6-21).
18. Where required, adjust side stay pads; then tack side stay pads to front roof rail and front bow. Attach side stay pads to center bow with screws. Trim selvage end of side stay pads at front roof rail. Install stay pad top covering material in conventional manner using nitrile or neoprene type trim cement.

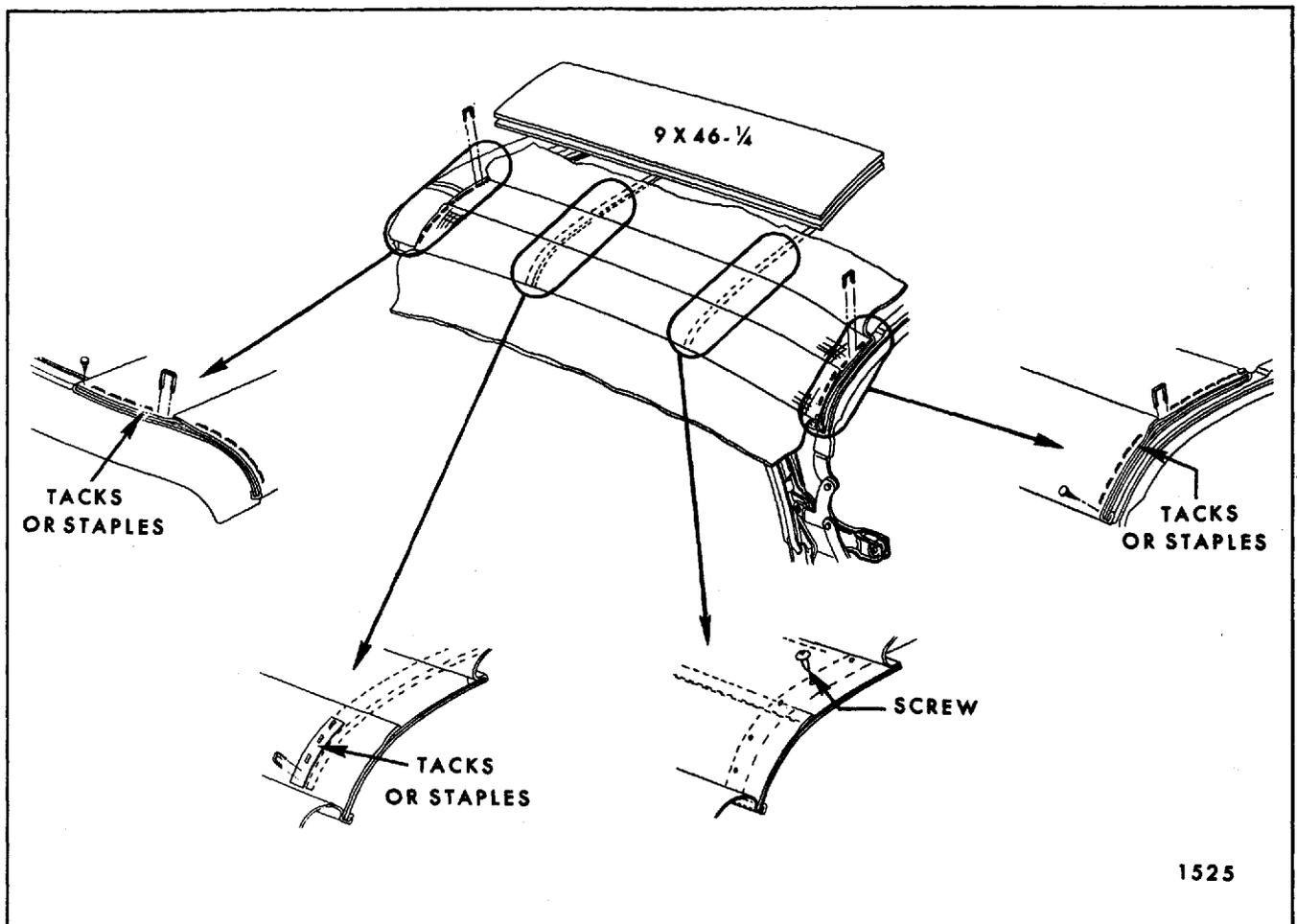


Fig. 6-16—"Z" Body Side Stay Pad Installation

19. On "B, C & A" Styles only, tack nylon webbing to rear roof bow. Outboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

**CAUTION:** Do not cut back curtain or side stay pad material.

20. Detach rear trim stick with attached back curtain assembly from body.
21. Lay out new top material on clean protected surface with outer layer of material exposed.
22. Using a pencil, mark top material (mark should be approximately 1/2" in length) at deck seam 5-1/4" on "B & C" and 4-1/4" on "A & Z" Styles from edge of top material upper valance binding. (See dimension "X" in Fig. 6-22)
23. Fold new top material in half so that inner

lining of top material is exposed (Fig. 6-23). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 6-23). Using a pencil, mark the approximate centerline of new top material along entire length of tape.

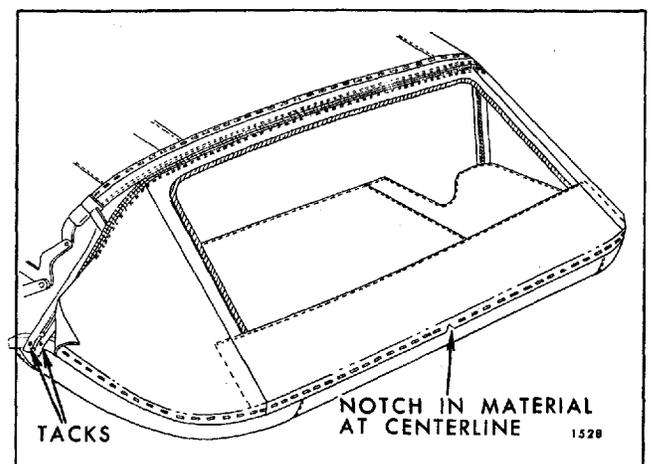


Fig. 6-17—Back Curtain Installation

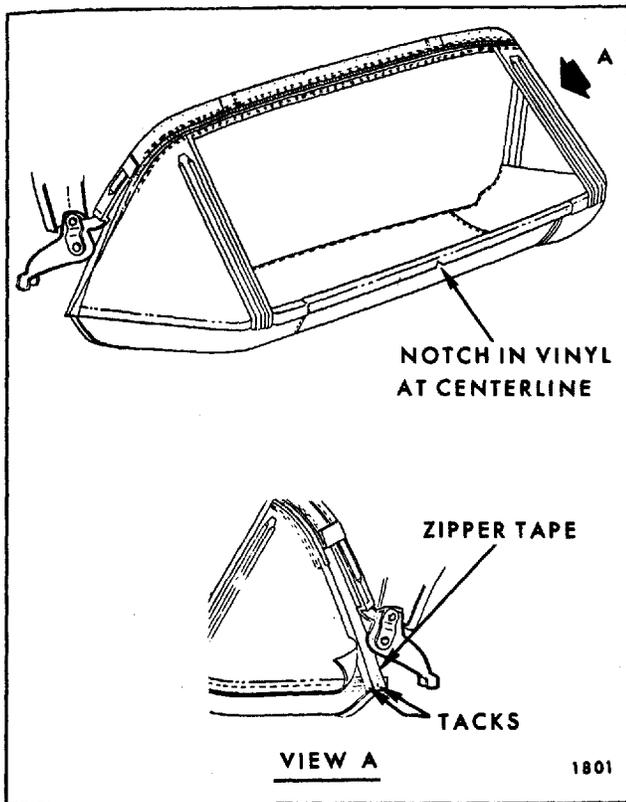


Fig. 6-18—Back Curtain Installation

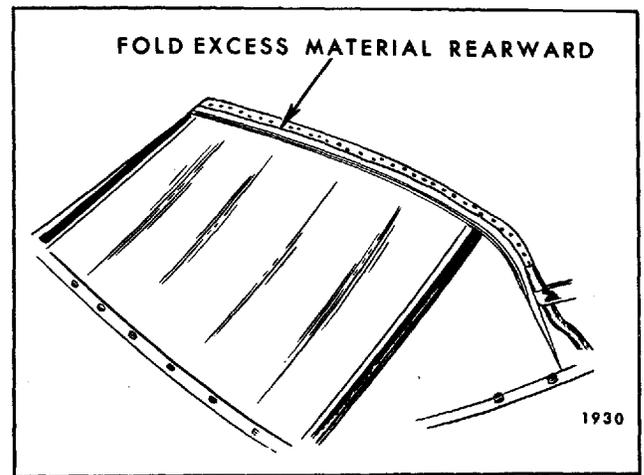


Fig. 6-20—Back Curtain Installed

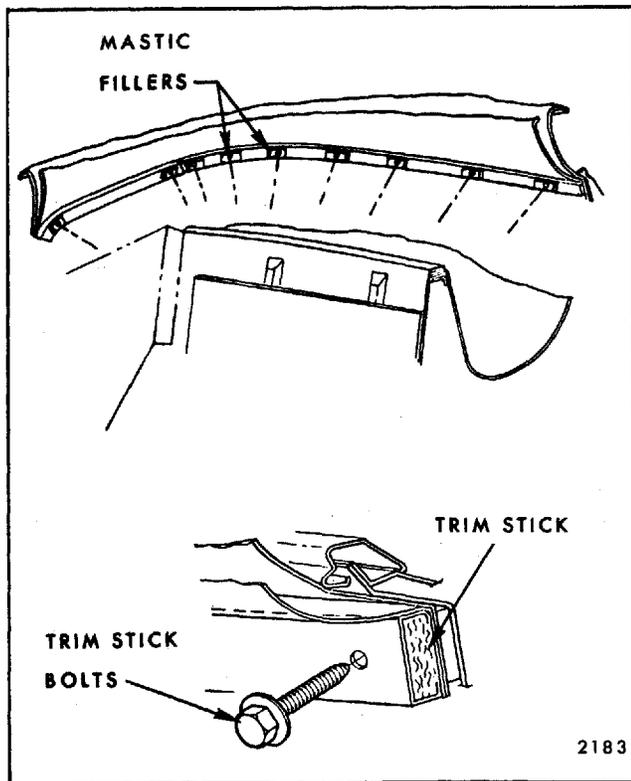


Fig. 6-19—Checking Trim Stick Fillers

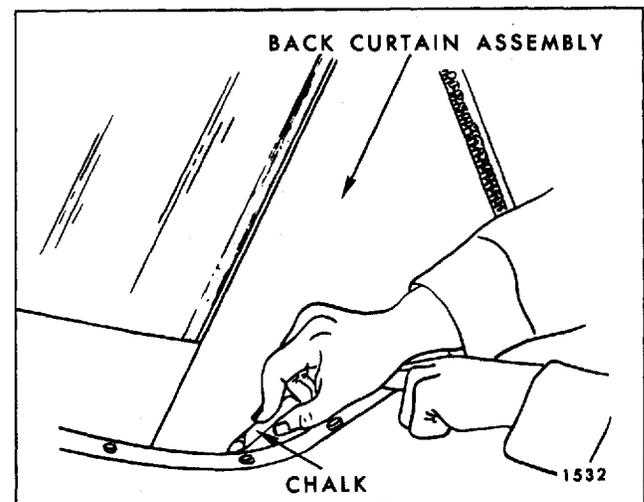


Fig. 6-21—Marking Back Curtain

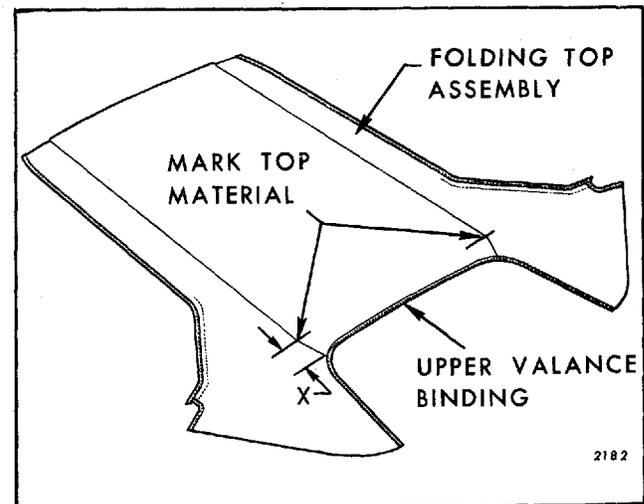


Fig. 6-22—Marking Top Material

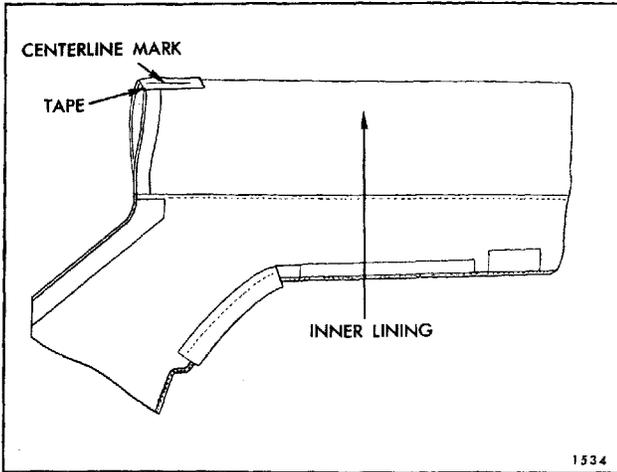


Fig. 6-23—Marking Folding Top Material

**IMPORTANT:** Be sure mark will be visible inside of body after new top is installed on convertible top framework.

24. Along forward surface of rear roof bow install a 1" piece of tape at centerline dimple of rear roof bow. Using a pencil, mark centerline of rear bow on tape (Fig. 6-24).
25. Remove rear bow spacer sticks and positioning tape or cord.
26. Check position of rear roof bow in relation to new folding top trim assembly by placing new top trim over folding top framework. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

**NOTE:** The deck seam mark will vary slightly

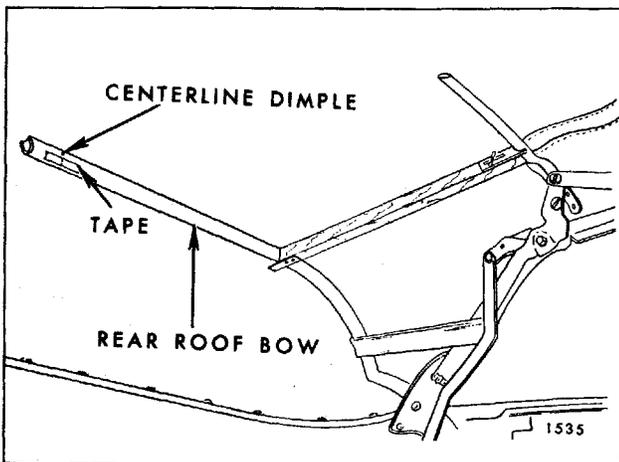


Fig. 6-24—Marking Rear Roof Bow

( $\pm 1/4$ " ) depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow.

27. Remove top trim material.
  28. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as guide. Also mark edges of trim sticks on vinyl surface of new top material. (See steps 21 and 22 of removal procedure).
  29. Position top trim on framework and center assembly both fore and aft and side to side.
  30. Install listing pocket retainer into listing pocket.
  31. Center retainer in listing pocket; then, install retainer into front bow.
- NOTE:** Retainer should be evenly centered between side roof rail stay pads.
32. Install front bow to listing pocket retainer attaching screws (Fig. 6-25).
  33. On right side of top material, at front of

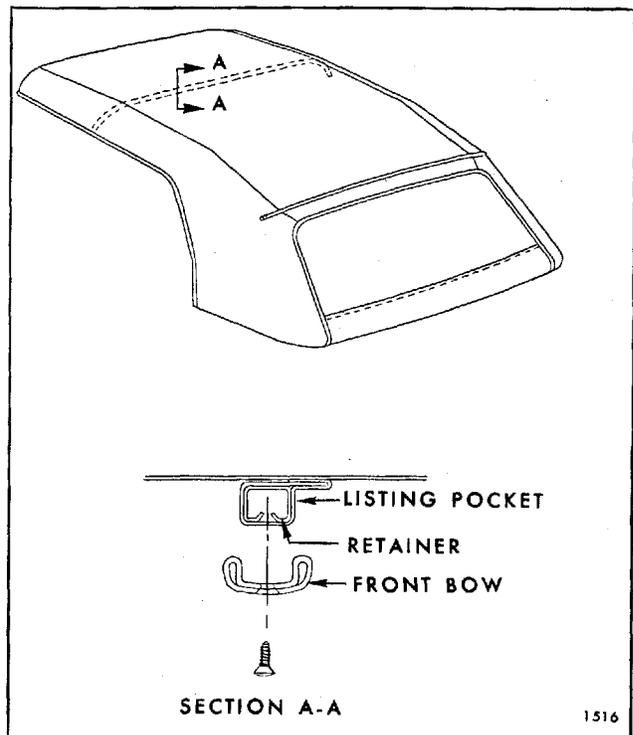


Fig. 6-25—Listing Pocket Retainer

hold-down cable pocket, install cable through pocket in top assembly.

**NOTE:** Welding rod or similar material may be bent at one end to form a hook. Then at rear of hold-down pocket, slip hooked end of rod into pocket. Push rod through pocket until hooked end of rod is exposed at front of pocket. Install rear end of cable attaching bracket over hooked portion of rod; then pull cable through pocket. When cable attaching bracket is exposed at rear end of hold-down pocket, disengage hooked portion of rod from cable attaching bracket. Repeat above operation on opposite side of top assembly.

34. After cables have been inserted in hold-down pockets in top material, securely install front and rear cable attaching brackets to side roof front and rear rails (Fig. 6-3).
35. Check position of top trim at rear roof bow and at side roof rear rails. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

**NOTE:** The deck seam mark will vary slightly ( $\pm 1/4$ " ) depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow. (See Fig. 6-26).

36. Using nitrile cement or neoprene-type weatherstrip adhesive, fasten rear quarter flaps to side roof rear rails. Make sure that quarter flap seam breaks at forward edge of side roof rear rail.

**NOTE:** Material may have to be stretched from side to side to insure proper fit of top material flaps to side roof rear rails and to remove wrinkles from top material along rear roof bow.

37. Using an awl or other suitable tool, pierce flaps for side roof rail rear weatherstrip attaching screws. Install side roof rail rear weatherstrips to help maintain position of quarter flaps while adhesive is drying.
38. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Figure 6-26 shows top material installed to rear trim stick at inboard edge.
39. Cut or punch hole in top material for each trim stick attaching bolt.
40. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts

are completely driven in to represent finished condition.

41. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.
42. Where required, re-mark top material; then make necessary adjustments to top material by repositioning rear quarter trim sticks and/or by retacking top material to rear and/or rear quarter trim sticks.

**NOTE:** In extreme cases, adjustment of top material at rear or rear quarter trim sticks may have to be performed several times before desired fit of top material is obtained.

43. Remove trim sticks with attached top material from top compartment well. Back curtain should extend  $1/2$ " below trim sticks. (See step 7 of installation procedure). In addition, top material must extend  $1/2$ " to  $5/8$ " below trim sticks to minimize water wicking on inner lining of back curtain material. Trim top material as required.
44. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.
45. Re-check side roof rail flaps. Make sure mark at deck seams is in center of rear bow. Also re-check centerline mark on inner surface of top material at rear bow.
46. Where required, remove side roof rail rear weatherstrips. Re-adjust top material at side roof rails and reinstall weatherstrips.
47. While pulling top material slightly rearward, stay tack top material along rear roof bow.

**IMPORTANT:** Tacks must be installed along a straight line in center of rear bow. (See Fig. 6-27). Tacks outboard of deck seams should be restricted to distance not to exceed 6", which is

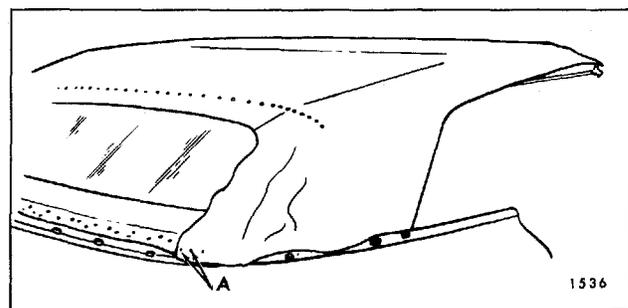


Fig. 6-26—Tacking Top Material

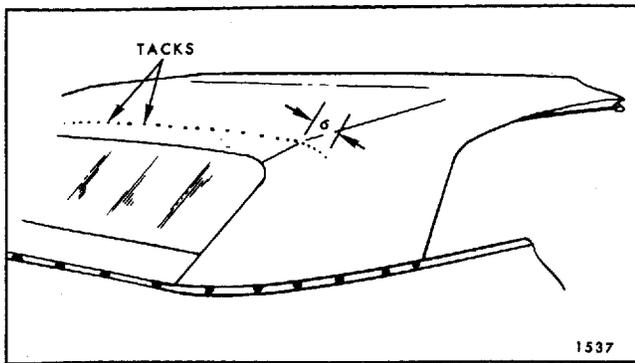


Fig. 6-27—Tacking Outboard Of Seams

length wire-on binding extends past seam (Fig. 6-27).

48. At front roof rail, pull top trim material forward to desired tension. While maintaining tension on top trim, place a pencil mark on outer surface of trim material along forward edge of front roof rail (Fig. 6-28).
49. Unlock top from windshield header and apply nitrile cement or neoprene-type weatherstrip adhesive to tacking area of front roof rail and corresponding surface of top material. Pull top trim material slightly forward so that pencil marks are on underside of front edge of front roof rail. Fasten top trim to cemented area and stay tack trim to rail (Fig. 6-29).
50. Apply nitrile cement or neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side roof front rails. (See Fig. 6-30).

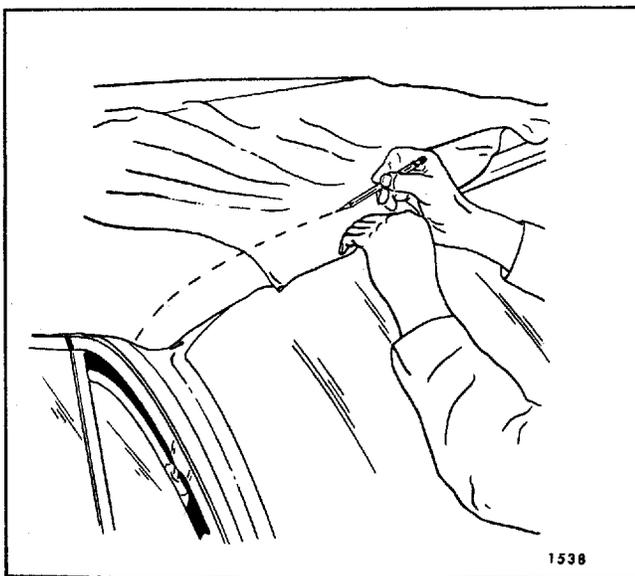


Fig. 6-28—Marking Top Material At Front Roof Rail

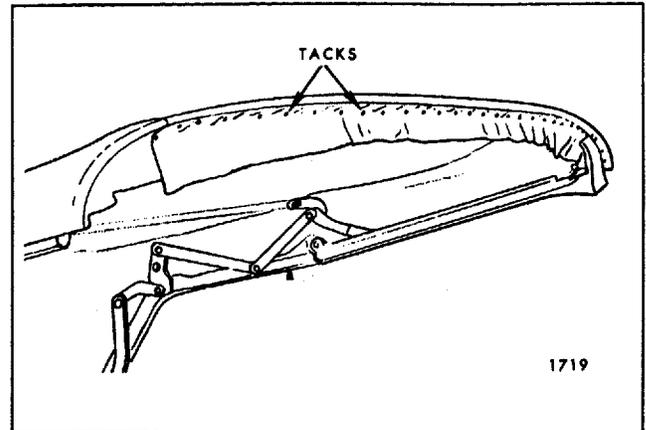


Fig. 6-29—Installation Of Top Material To Front Roof Rail

51. Lock top to windshield header. Check appearance of top trim as well as operation and locking action of top. (If additional tension is desired in top trim unlock top from header and reposition top trim by pulling trim further forward. Stay tack and re-check top appearance).
52. Complete tacking of top trim to front roof rail and trim off excess material.
53. Permanently tack top material to rear roof bow. Apply bead of neoprene-type weatherstrip adhesive around each tack head, and into two

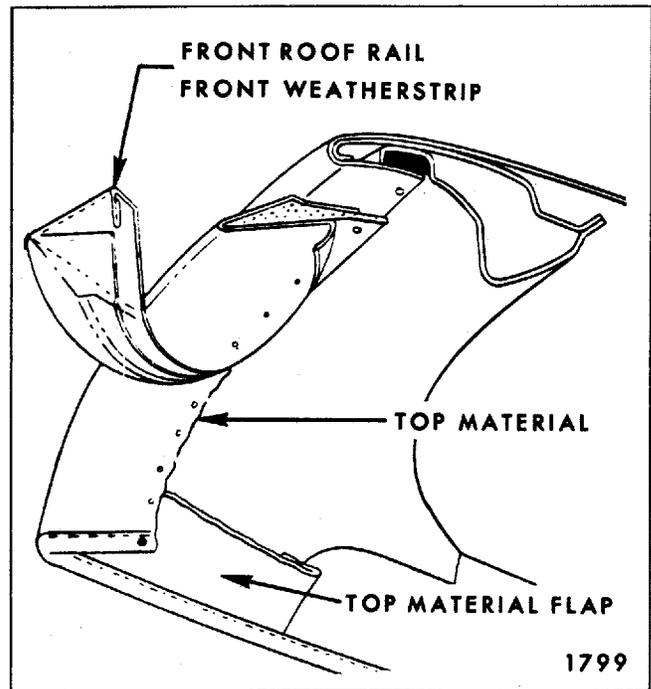


Fig. 6-30—Top Material At Front Roof Rail

holes pierced into top material for wire-on binding clip escutcheons.

**NOTE:** Any tack holes made in top material as a result of stay tacking material to rear roof bow should also be sealed using neoprene-type weatherstrip adhesive.

54. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware and clean any soilage from top material, back window and material or pads.

55. On styles so equipped, connect back curtain support rod to back curtain.

## FOLDING TOP TRIM—LESS BACK CURTAIN

### REMOVAL OF FOLDING TOP TRIM COVER

1. Place protective covers on all exposed panels which may be contacted during procedures.

2. Remove rear cushion and back.

**CAUTION:** Disconnect rear seat speaker wire if present.

3. Remove right and left folding top compartment side trim panels.

4. Remove right and left side roof rail rear weatherstrip attaching screws; then remove weatherstrips from rails.

5. Detach folding top quarter flaps from side roof rear rails.

6. Lower to "stacked" position.

7. Remove right and left side roof rail front weatherstrip attaching screws; then remove weatherstrip from rails.

8. Remove front roof rail front and rear weatherstrips.

9. Detach top material from front roof rail.

10. Detach top material flaps from side roof front rail (Fig. 6-30).

11. Raise top and lock to windshield header.

12. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws. (See Views "A and B" in Fig. 6-31).

13. Pull both hold-down cables forward until cables are completely removed from top material retaining pockets.

14. At underside of front bow, remove screws securing listing pocket retainer to bow (Fig. 6-32).

15. Push top material upward sufficiently until retainer is disengaged from bow; then, remove retainer from listing pocket.

16. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 6-33).

17. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 6-34).

18. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.

19. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 6-35).

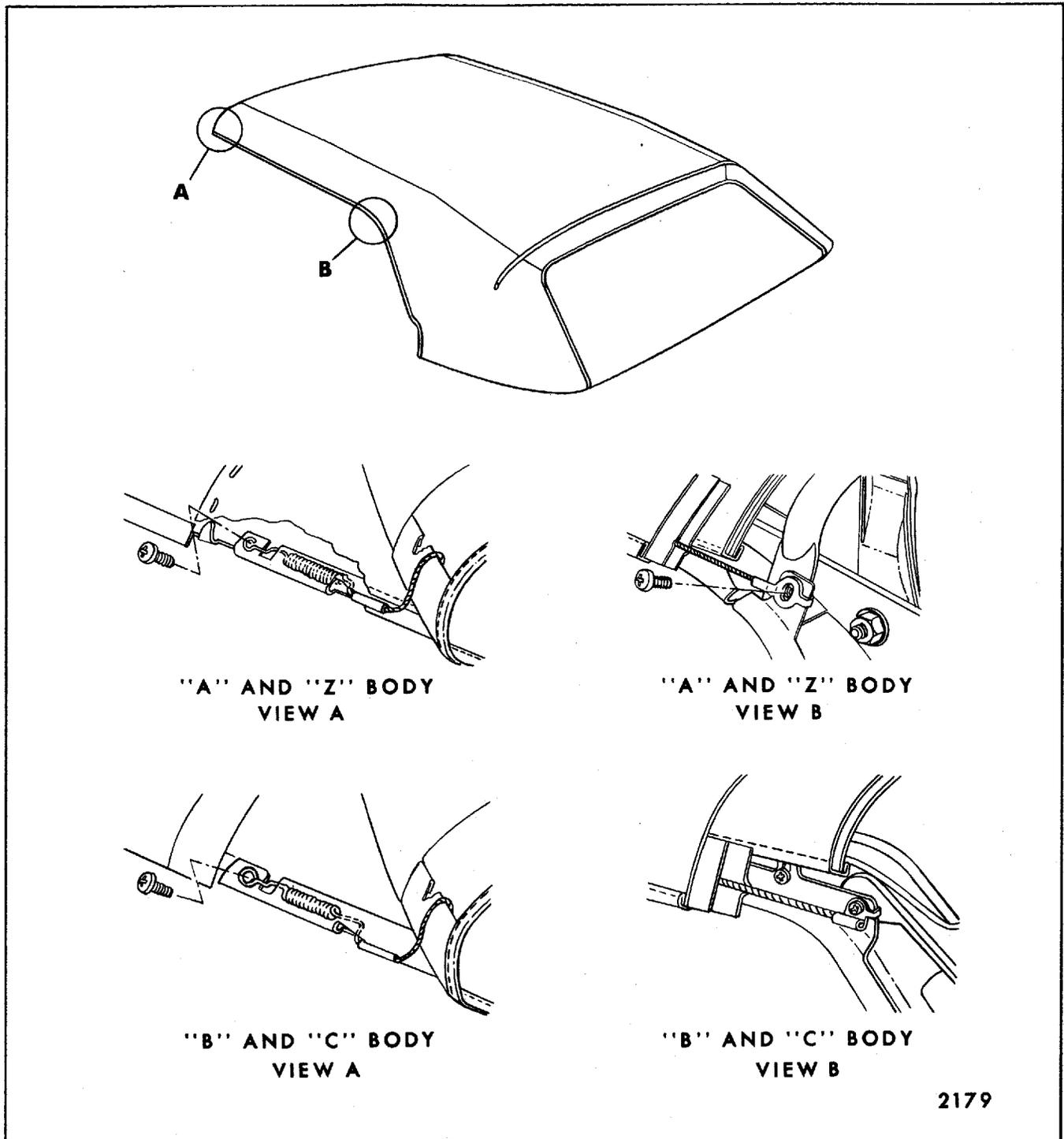
**NOTE:** Reference marks must be made below upper edge of rear trim sticks.

20. To establish relationship of old top material to its position on rear trim sticks, cut selvage end of top material off flush with lower edge of trim sticks.

**CAUTION:** When cutting top material, be careful not to cut lower selvage edge of back curtain assembly.

21. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material as shown in Figure 6-36. Reference marks for trim sticks should be transferred to new top material when step 8 of installation procedure is performed.

22. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow. Detach top material from rear roof bow and from trim sticks, then remove top cover assembly (Fig. 6-37).



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Fig. 6-31—Convertible Top Material Hold Down Cable

### INSTALLATION OF FOLDING TOP TRIM COVER

1. Prior to installation of new top trim material, check contour of back curtain and side stay pad assemblies. Where required, adjust back curtain and/or stay pads.
2. Lay out new top material on clean protected surface with outer layer of material exposed.
3. Using a pencil, mark top material (mark should be approximately 1/2" in length) at deck seam 5-1/4" on "B & C" and 4-1/4" on "A & Z" Styles from edge of top material upper valance binding. (See dimension "X" in Fig. 6-38).

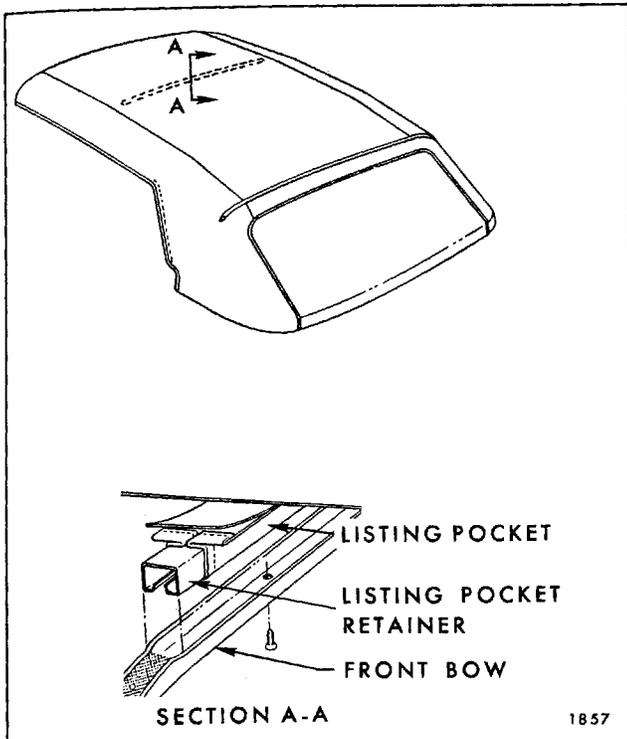


Fig. 6-32—Listing Pocket Retainer

4. Fold new top material in half so that inner lining of top material is exposed (Fig. 6-39). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 6-39). Using a pencil, mark the approximate centerline of new top material along entire length of tape.

**IMPORTANT:** Be sure mark will be visible

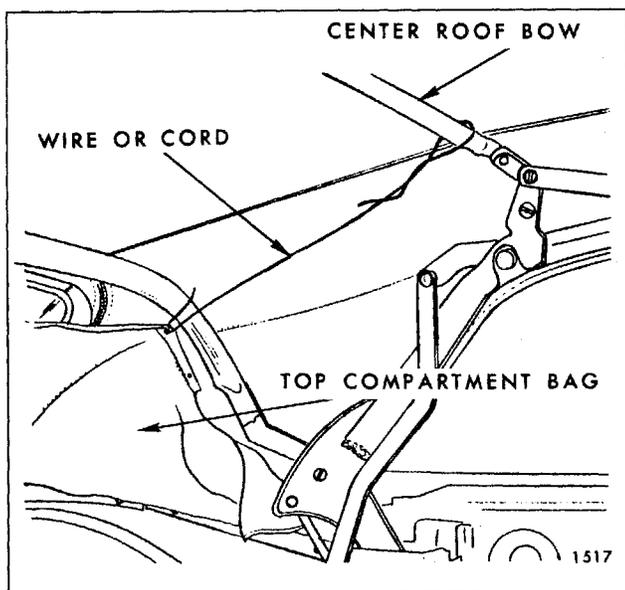


Fig. 6-33—Top Compartment Bag Tied To Center Rail

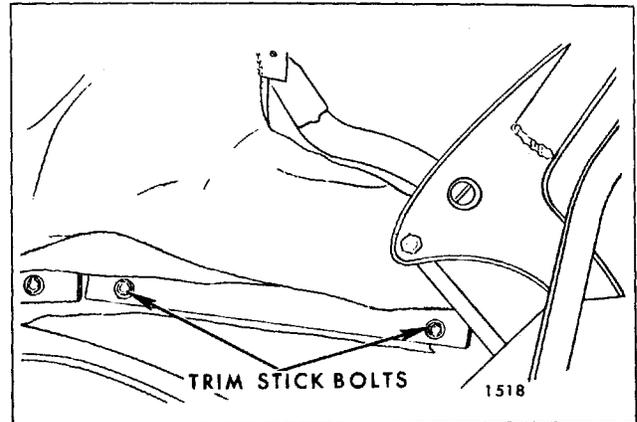


Fig. 6-34—Rear Quarter Trim Stick

inside of body after new top is installed on convertible top framework.

5. Along forward surface of rear roof bow install a 1" piece of tape at centerline dimple of rear roof bow. Using a pencil, mark centerline of rear bow on tape (Fig. 6-40).
6. Check position of rear roof bow in relation to new folding top trim assembly by placing new top trim over folding top framework. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

**NOTE:** The deck seam mark will vary slightly ( $\pm 1/4"$ ) depending upon position of rear roof

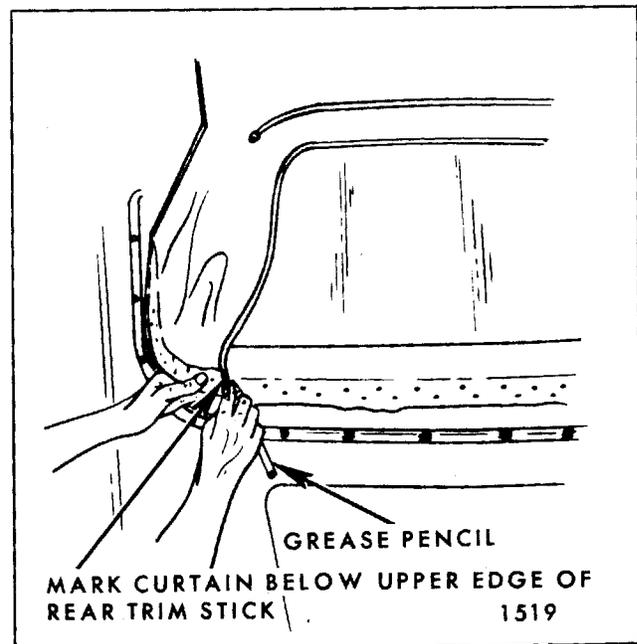


Fig. 6-35—Locating Edge Of Top Material

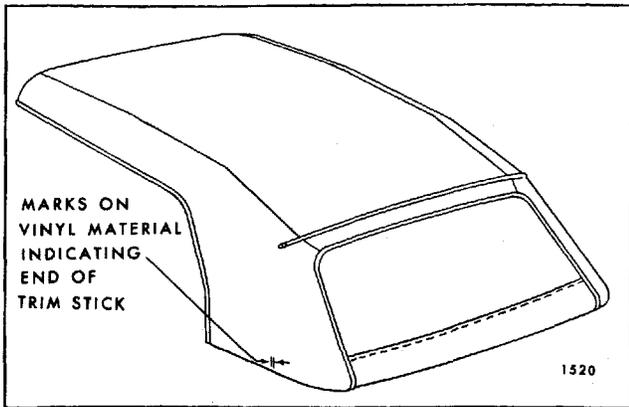


Fig. 6-36—Marking Top Material

bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow.

7. Remove top trim material.
8. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as guide. Also mark

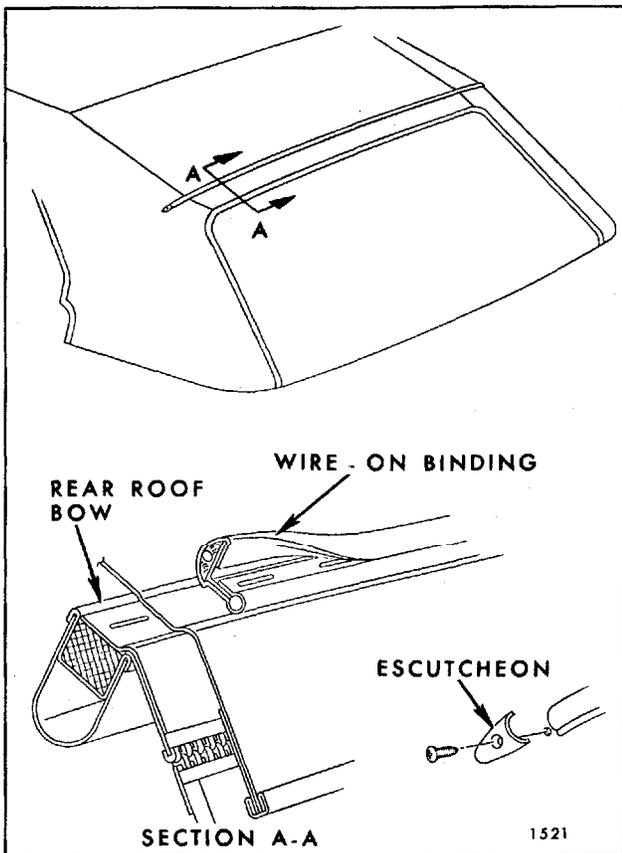


Fig. 6-37—Rear Roof Bow Wire-On Binding

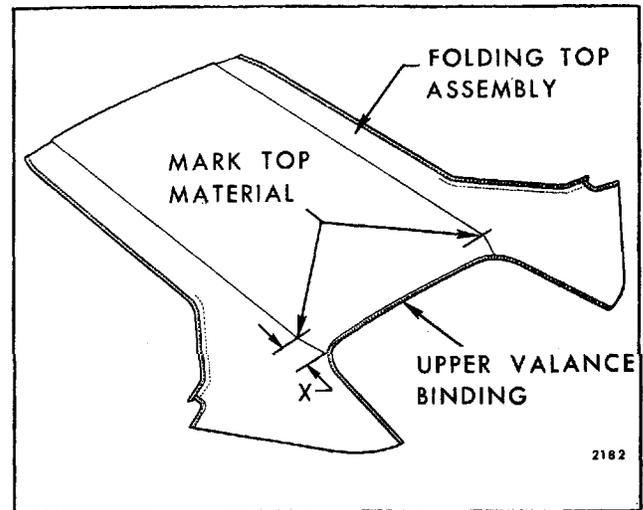


Fig. 6-38—Marking Top Material

edges of trim sticks on vinyl surface of new top material. (See steps 20 and 21 of removal procedure).

9. Position top trim on framework and center assembly both fore and aft and side to side.
  10. Install listing pocket retainer into listing pocket.
  11. Center retainer in listing pocket; then install retainer into front bow.
- NOTE:** Retainer should be evenly centered between side roof rail stay pads.
12. Install front bow to listing pocket retainer with attaching screws (Fig. 6-32).
  13. On right side of top material, at front of hold-down cable pocket, install cable through pocket in top assembly.

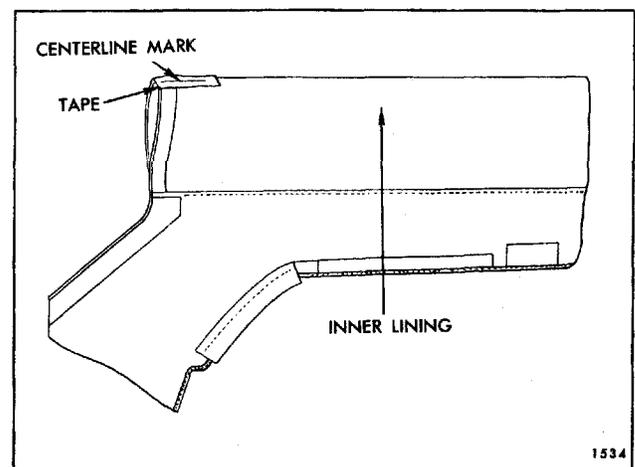


Fig. 6-39—Marking Folding Top Material

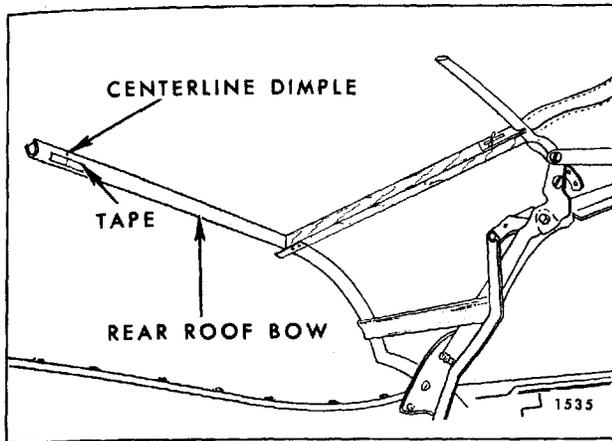


Fig. 6-40—Marking Rear Roof Bow

**NOTE:** Welding rod or similar material may be bent at one end to form a hook. Then at rear of hold-down pocket slip hooked end of rod into pocket. Push rod through pocket until hooked end of rod is exposed at front of pocket. Install rear end of cable attaching bracket over hooked portion of rod; then pull cable through pocket. When cable attaching bracket is exposed at rear end of hold-down pocket, disengage hooked portion of rod from cable attaching bracket. Repeat above operation on opposite side of top assembly.

14. After cables have been inserted in hold-down pockets in top material, securely install front and rear cable attaching brackets to side roof front and rear rails (Fig. 6-31).
15. Check position of top trim at rear roof bow and at side roof rear rails. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

**NOTE:** The deck seam mark will vary slightly ( $\pm 1/4''$ ) depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow. (Fig. 6-40).

16. Using nitrile cement or neoprene-type weatherstrip adhesive, fasten rear quarter flaps to side roof rails. Make sure that quarter flap seam breaks at forward edge of side roof rear rail.

**NOTE:** Material may have to be stretched from side to side to insure proper fit of top material flaps to side roof rear rails and to remove wrinkles from top material along rear roof bow.

17. Using an awl or other suitable tool, pierce flaps for side roof rail rear weatherstrip

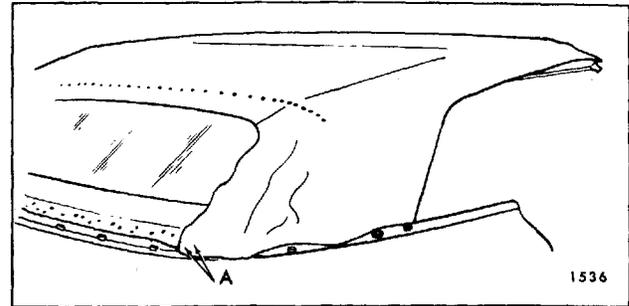


Fig. 6-41—Tacking Top Material

attaching screws. Install side roof rail rear weatherstrip to help maintain position of quarter flaps while adhesive is drying.

18. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Figure 6-41 shows top material installed to rear trim stick at inboard edge.
19. Cut or punch hole in top material for each trim stick attaching bolt.
20. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in to represent finished condition.
21. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.
22. Where required, re-mark top material; then make necessary adjustments to top material by repositioning rear quarter trim sticks and/or by retacking top material to rear and/or rear quarter trim sticks.

**NOTE:** In extreme cases, adjustment of top material at rear or rear quarter trim sticks may have to be performed several times before desired fit of top material is obtained.

23. Remove trim sticks with attached top material from top compartment well. Top material must extend  $1/2''$  to  $5/8''$  below trim sticks to minimize water wicking on inner lining of back curtain material. Trim top material as required.
24. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.
25. Re-check side roof rail flaps. Make sure mark at deck seams is in center of rear bow. Also re-check centerline mark on inner surface of top material at rear bow.

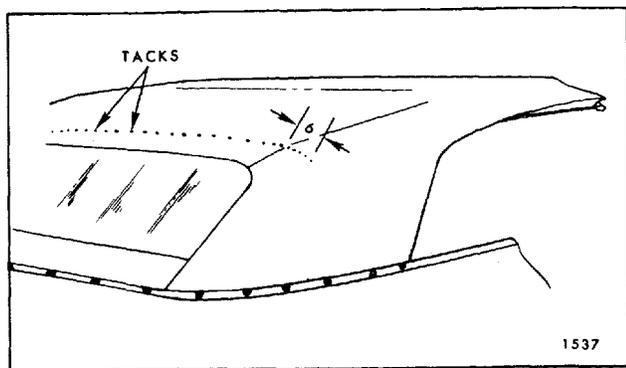


Fig. 6-42—Tacking Outboard Of Seams

26. Where required, remove side roof rail rear weatherstrips. Re-adjust top material at side roof rails and reinstall weatherstrips.
27. While pulling top material slightly rearward, stay tack top material along rear roof bow.

**IMPORTANT:** Tacks must be installed along a straight line in center of rear bow. (See Fig. 6-42). Tacks outboard of deck seams should be restricted to distance not to exceed six inches, which is length wire-on binding extends past seam (Fig. 6-42).

28. At front roof rail, pull top trim material forward to desired tension. While maintaining tension on top trim, place a pencil mark on outer surface of trim material along forward edge of front roof rail (Fig. 6-43).
29. Unlock top from windshield header and apply nitrile cement or neoprene-type weatherstrip adhesive to tacking area of front roof rail and corresponding surface of top material. Pull top trim material slightly forward so that pencil marks are on underside of front edge of front roof rail. Fasten top trim to cemented area and stay tack trim to rail (Fig. 6-44).
30. Apply nitrile cement or neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side roof front rails. (See Fig. 6-30).
31. Lock top to windshield header. Check appearance of top trim as well as operation and locking action of top. (If additional tension is desired in top trim unlock top from header and reposition top trim by pulling trim further forward. Stay tack and recheck top appearance).
32. Complete tacking of top trim to front roof rail and trim off excess material.

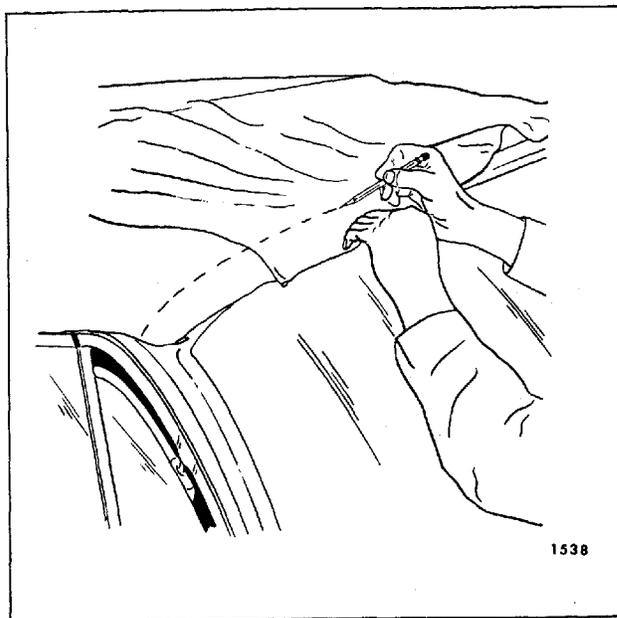


Fig. 6-43—Marking Top Material At Front Roof Rail

33. Permanently tack top material to rear roof bow. Apply bead of neoprene-type weatherstrip adhesive around each tack head, and into two holes pierced into top material for wire-on binding clip escutcheons.

**NOTE:** Any tack holes made in top material as a result of stay tacking material to rear roof bow should also be sealed using neoprene-type weatherstrip adhesive.

34. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware and clean any soilage from top material, back window and material or pads.

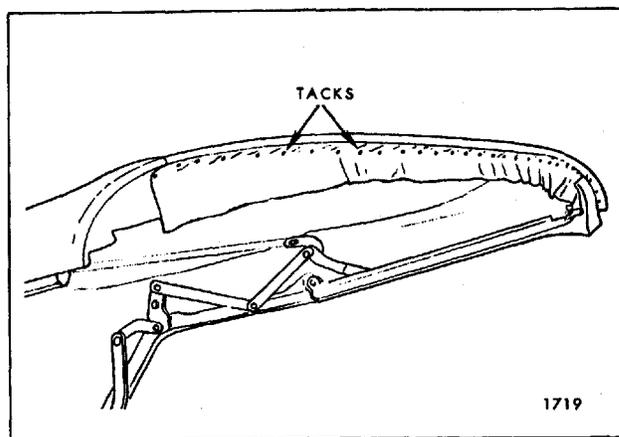


Fig. 6-44—Installation Of Top Material To Front Roof Rail

## BACK CURTAIN ASSEMBLY (COMPLETE)

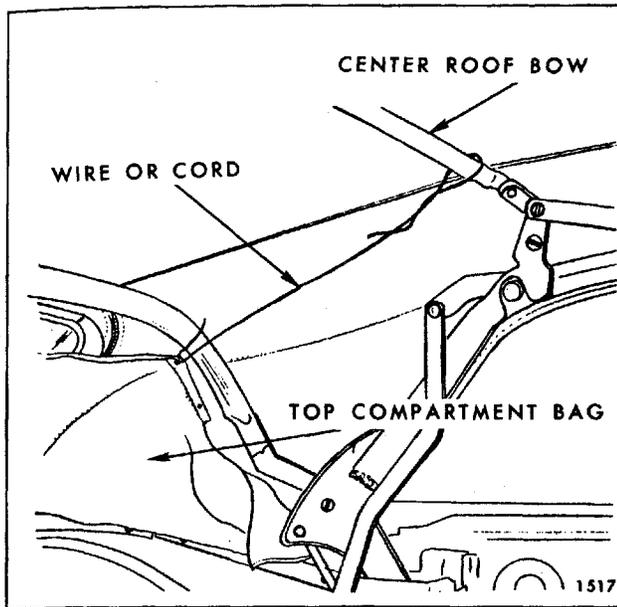


Fig. 6-45—Top Compartment Bag Tied To Center Rail

### REMOVAL PROCEDURE

1. Place protective covers on all exposed panels which may be contacted during procedure.
2. Remove following trim and hardware items:
  - a. Rear seat cushion and back.

**CAUTION:** Disconnect rear seat speaker wire if present.

  - b. Folding top compartment side trim panel assemblies.
  - c. Side roof rail rear weatherstrip; then loosen folding top quarter flaps from rails.
3. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 6-45).
4. On styles equipped with back curtain support rods disengage rods from back curtain (Fig. 6-46).
5. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 6-47).
6. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and

rear trim sticks on top of rear compartment front panel.

7. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 6-48). Reference marks should be transferred to new back curtain when step 3 of installation procedure is performed.

**NOTE:** Reference marks must be made below upper edge of rear trim stick.

8. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material (Fig. 6-49).
9. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow (Fig. 6-50).
10. Detach folding top trim from rear roof bow and from rear and rear quarter trim sticks.
11. Carefully slide top trim forward exposing tacked edge of back curtain at rear roof bow.
12. On styles equipped with dropping back curtain detach nylon webbing and back curtain from rear roof bow; then remove back curtain assembly with attached trim sticks and top compartment bag from body and place on a clean, protected surface. On all other styles remove back curtain from rear roof bow.
13. Remove right and left nylon webbing from rear trim stick. (All styles except "Z" Body).
14. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material (Fig. 6-51). Reference marks for trim sticks should be transferred to new back curtain material when step 3 of installation procedure is performed.
15. Remove back curtain assembly from rear and rear quarter trim sticks.

### INSTALLATION PROCEDURE

1. Preset spacer sticks to shortest length and install between center and rear roof bow (Fig. 6-52). Adjust sticks so that dimension "X" in Figure 6-52 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 14-7/8" on "B &

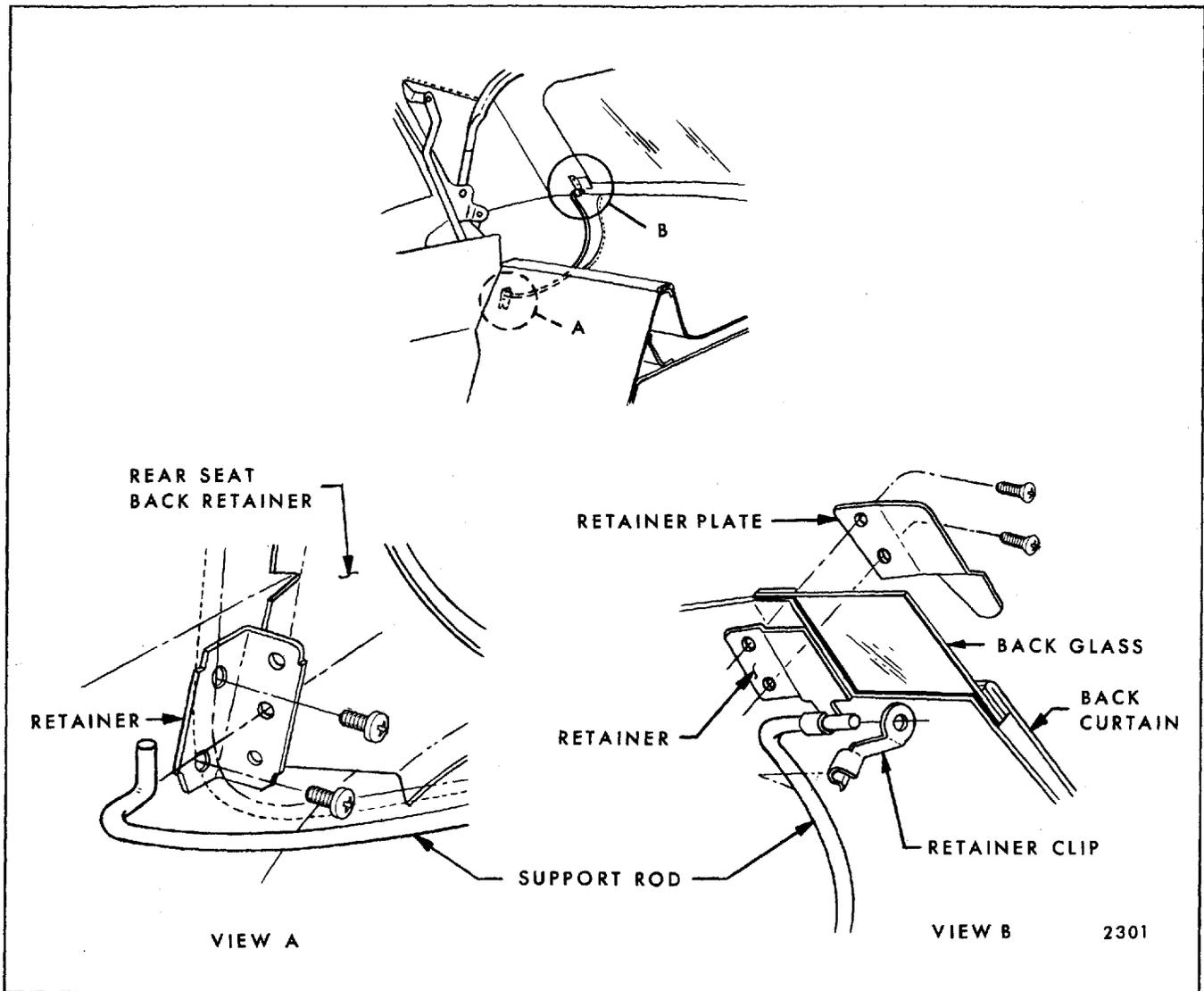


Fig. 6-46—"B & C" Body Back Glass Support Rod Attachments

"C" Styles, 16-5/8" on "A" Styles and 16-1/64" on "Z" Styles.

**NOTE:** Dimension may vary  $\pm 1/4$ " after back curtain has been completely installed.

Tie or tape rear bow to rear side roof rails.

2. Place new back curtain assembly on clean covered work bench with interior surface of back window facing down.
3. Carefully lay removed back curtain assembly over new back curtain assembly. Using a grease pencil, mark vinyl surface of new back curtain using marked edge of old curtain as guide. (See steps 7 and 14 of removal procedure). In addition, mark trim stick bolt hole locations on new back curtain assembly.

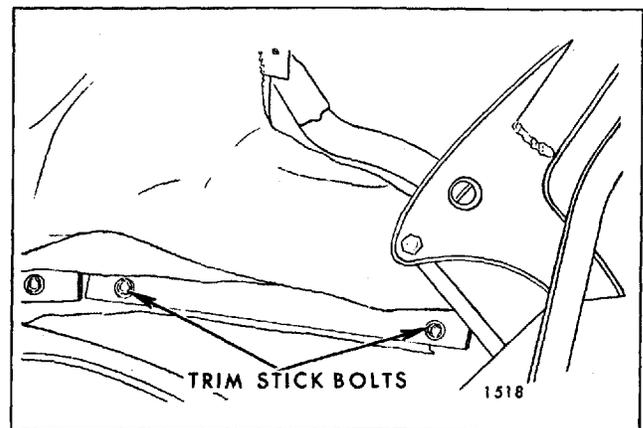


Fig. 6-47—Rear Quarter Trim Stick

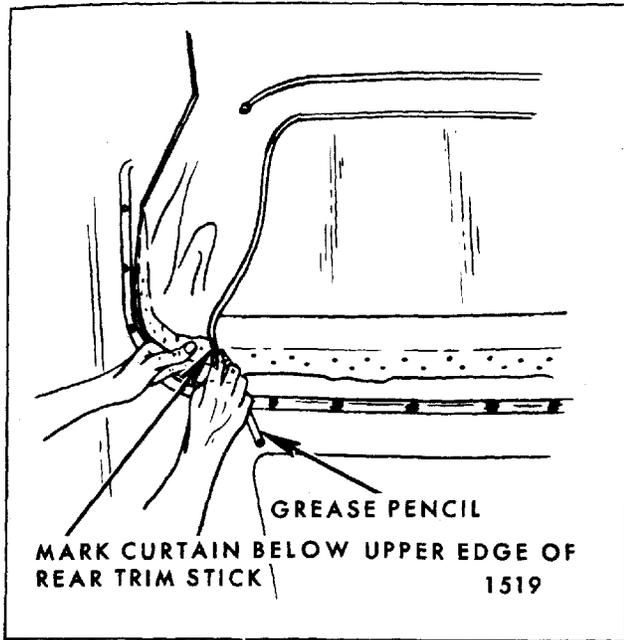


Fig. 6-48—Locating Edge Of Top Material

**IMPORTANT:** Where a grease pencil or similar material is used for marking back curtain, marks must be below trim stick so that they will not show after curtain is installed in body.

- Center and position back curtain assembly to rear trim stick over attached compartment bag.

**NOTE:** Notch in back curtain material at lower edge indicates centerline of back curtain assembly. (See Fig. 6-53). In addition, back curtain lower edge should extend approximately 1/2" below lower edge of trim sticks.

- Tack curtain to rear and rear quarter trim sticks (Fig. 6-53). On "A & Z" Body Styles

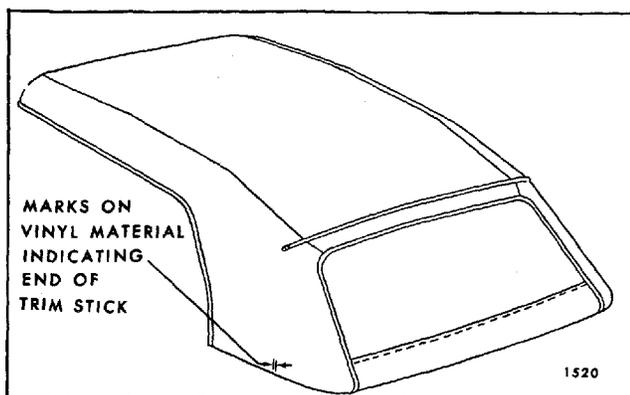


Fig. 6-49—Marking Top Material

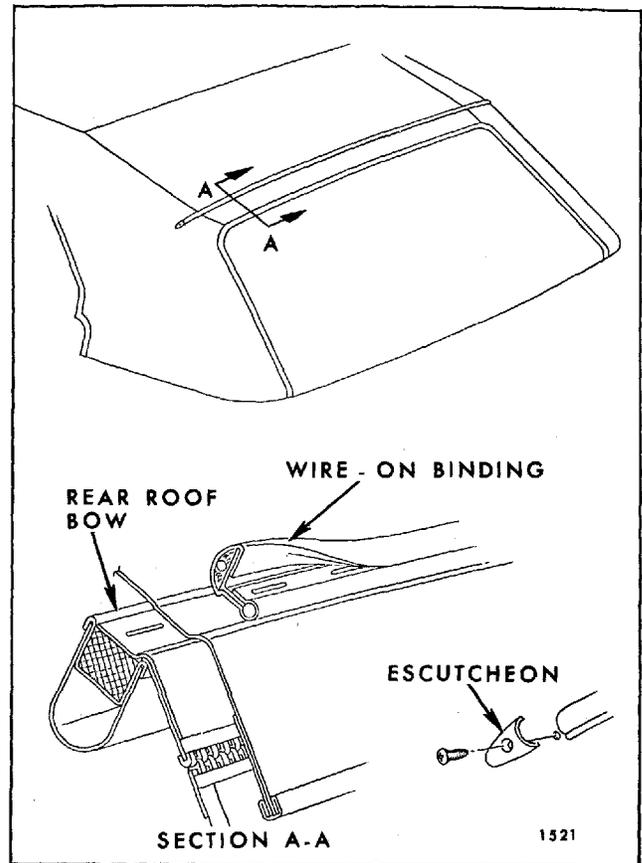


Fig. 6-50—Rear Roof Bow Wire-On Binding

tack zipper tape on right side to forward edge of rear quarter trim stick (Fig. 6-54).

**NOTE:** Zipper stop should be above upper edge of rear quarter trim stick. Zipper tape should not be pulled taut after back curtain has been installed to rear roof bow as zipper assembly

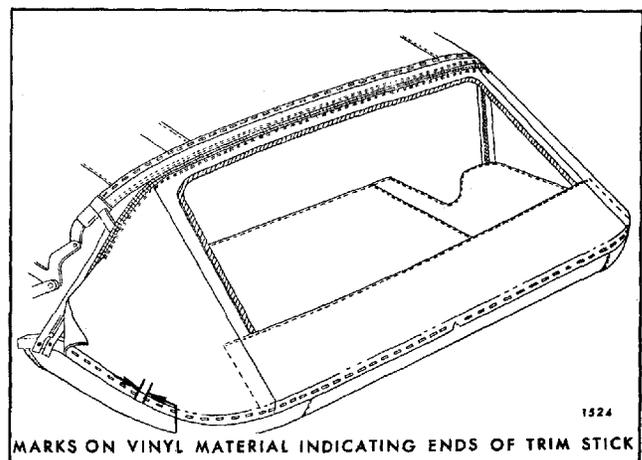


Fig. 6-51—Marking Back Curtain

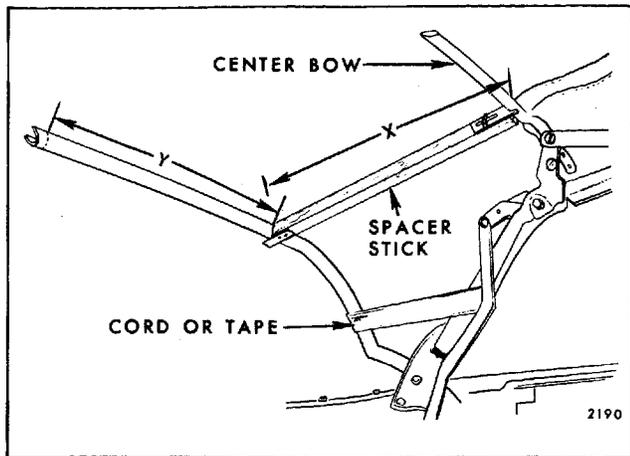


Fig. 6-52—Spacer Stick Installation

may show through top material after top has been properly installed.

6. Tack remainder of back curtain material to rear quarter trim stick.
7. Tacks securing back curtain assembly to trim sticks should be placed close to each side of every bolt hole in trim sticks; then pierce or punch back curtain assembly for each trim stick bolt.
8. On "B, C & A" Styles tack nylon webbing to rear trim stick. Forward edge of webbing should be even with edge of rear trim stick.
9. Inspect mastic type trim stick fillers at body below pinchweld for sufficient seal at bolt holes (Fig. 6-55).
10. On "B & C" Styles with dropping back curtain, fasten back curtain assist straps to rear roof bow. On all styles secure back curtain

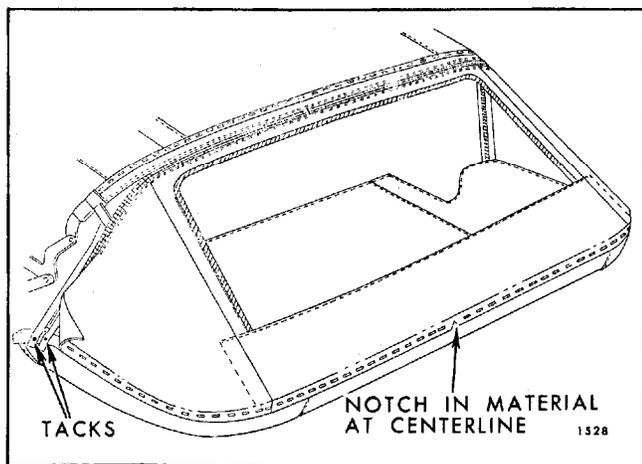


Fig. 6-53—Back Curtain Installation

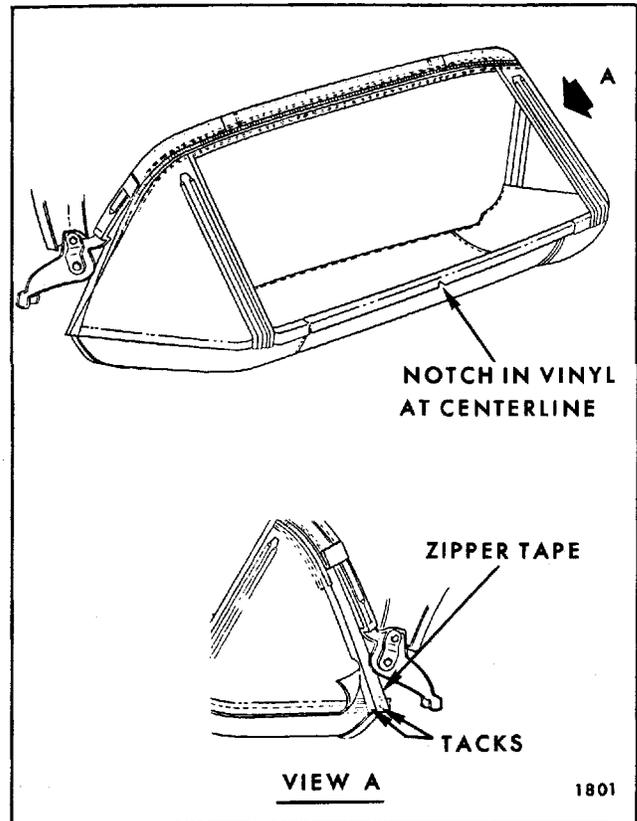


Fig. 6-54—Back Curtain Installation

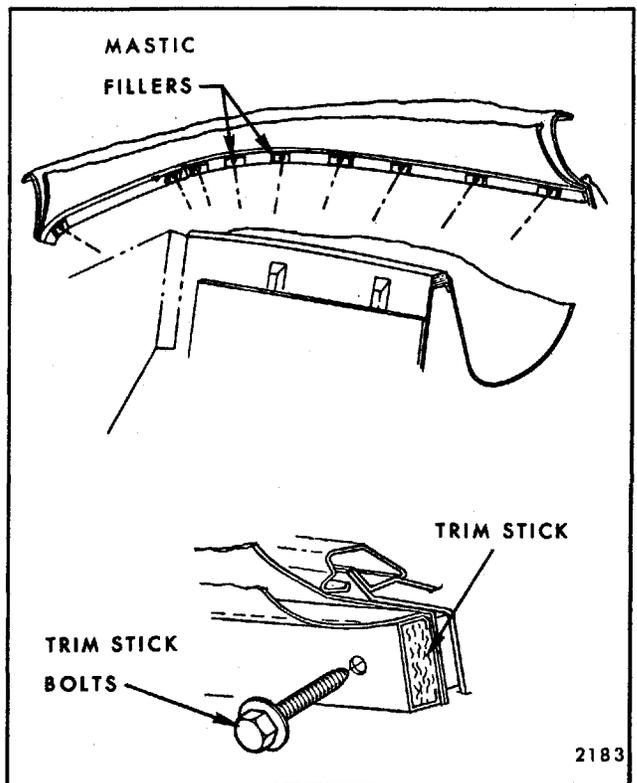


Fig. 6-55—Checking Trim Stick Fillers

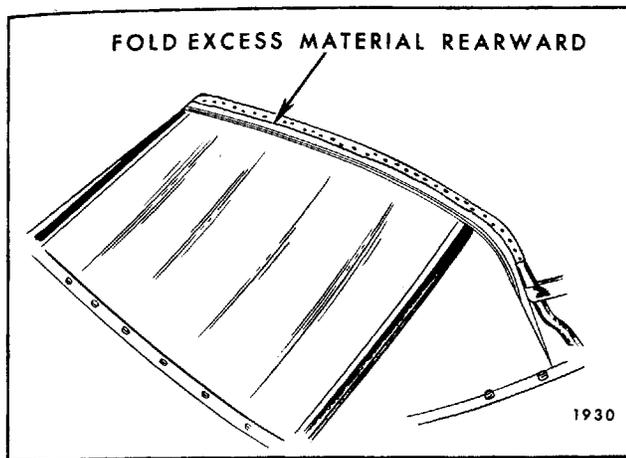


Fig. 6-56—Back Curtain Installed

assembly with a sufficient number of tacks to rear bow to prevent accidental damage to back window.

11. Install rear trim stick with attached back curtain assembly into body.

**NOTE:** Make sure that all trim stick bolts are driven completely in to represent finished condition.

12. Working from body center progressively outboard to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from curtain material. Fold any excess back curtain upper valance material rearward and tack to rear bow (Fig. 6-56).

**IMPORTANT:** DO NOT CUT OFF EXCESS UPPER VALANCE MATERIAL AS MATERIAL MAY UNRAVEL.

13. Check contour of back curtain assembly to rear roof bow and at pinchweld molding.
14. Where required, place reference chalk mark on outer surface of back curtain along pinch-

## BACK CURTAIN ZIPPER REPLACEMENT All Styles Equipped With Dropping Back Curtain

If only the back curtain zipper is being replaced, use the Removal and Installation procedure for "Back Curtain Assembly (Complete)" and perform the following additional operations after the back curtain assembly has been removed from body (after step 15 of removal procedure).

1. Using chalk or similar material, on old zipper tape mark location of zipper in relation to edges of back window and upper valance webbing.

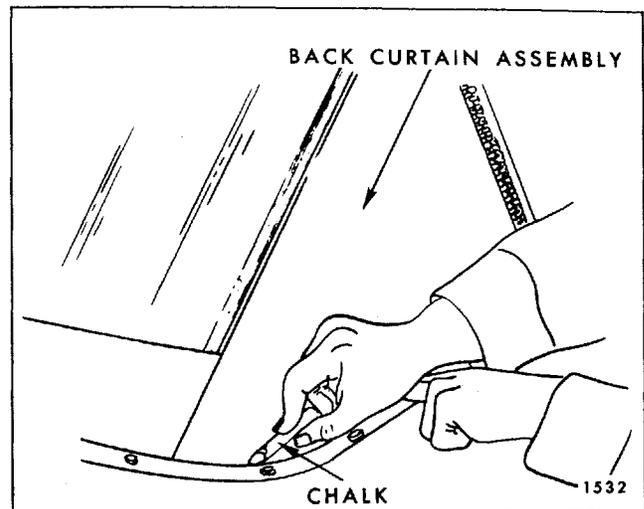


Fig. 6-57—Marking Back Curtain

weld finishing molding. Re-adjust back curtain assembly as required (Fig. 6-57).

15. On "B, C & A" Styles, tack nylon webbing to rear roof bow. Outboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

**CAUTION:** Do not cut back curtain or side stay pad material.

16. Detach rear trim stick with attached back curtain assembly from body and install top trim cover assembly.

**NOTE:** Extra care in positioning new curtain at same location on trim stick as old curtain and aligning of trim stick attaching bolt holes in top material with holes in trim stick will allow re-installation of top material to its original position with a minimum of refitting.

17. Install all previously removed trim and hardware.

2. Cut stitches securing zipper tape to back curtain assembly and to upper valance webbing.
3. Transfer reference marks to new zipper assembly.
4. Sew new zipper tape to back curtain material and upper valance webbing.

**NOTE:** Zipper tape may be stapled to back

curtain and upper valance webbing to aid in holding zipper in proper position during sewing operation.

5. Install back curtain assembly as described under Installation procedure for "Back Curtain Assembly (Complete)".

## HYDRO-LECTRIC SYSTEM—ALL EXCEPT "Z" BODY

### DESCRIPTION

The high pressure hydro-lectric unit used in the convertible bodies, consists of a 12 volt reversible type motor, a rotor-type pump, two hydraulic lift cylinders, and an upper and lower hydraulic hose assembly. On the "A" Series the unit is installed in the body directly behind rear seat back. (Fig. 6-58). On the "B & C" Series the unit is installed in the body beneath the rear seat back panel (Fig. 6-59).

Figure 6-60 illustrates and identifies the individual parts of the motor and pump assembly.

**NOTE:** When servicing the motor assembly or pump end plate assembly, it is extremely important that the small motor shaft "O" ring seal is properly installed over the motor armature shaft and into the pump end plate assembly prior to installing the pump rotors or the motor shaft drive ball.

### MOTOR AND PUMP ASSEMBLY

#### Removal

1. Operate folding top to full "up" position.
2. Disconnect positive battery cable.
3. a. On "A" Styles, place protective covering over rear seat cushion and back.

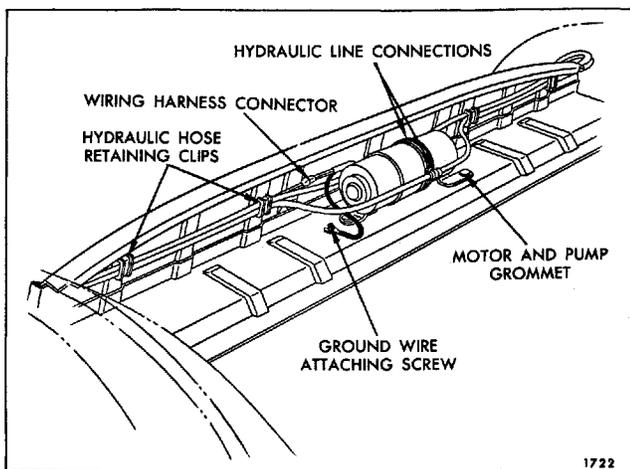


Fig. 6-58—Motor And Pump Assembly

- b. On "B & C" Styles, remove rear seat cushion and back.
4. Working inside body, detach front edge of folding top compartment bag from rear seat back panel.
5. On "A" Body Styles, working on inside of body over rear seat back, remove pump and motor shield attaching screws and remove shield.
6. Remove clips securing wire harness and hydraulic hose to rear seat back panel. (Figs. 6-58 and 6-59).
7. a. On "A" Body Styles disconnect motor leads from wire harness and ground attaching screws (Fig. 6-58).
  - b. On "B & C" Body Styles at rear seat back panel, disconnect wiring harness and remove ground wire attaching screw (Fig. 6-59).
8. To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from floor pan. (Figs. 6-59 and 6-58).
9. Place absorbent rags below hose connections and end of reservoir.
10. With a straight-bladed screwdriver, vent reservoir by removing filler plug; then install plug.

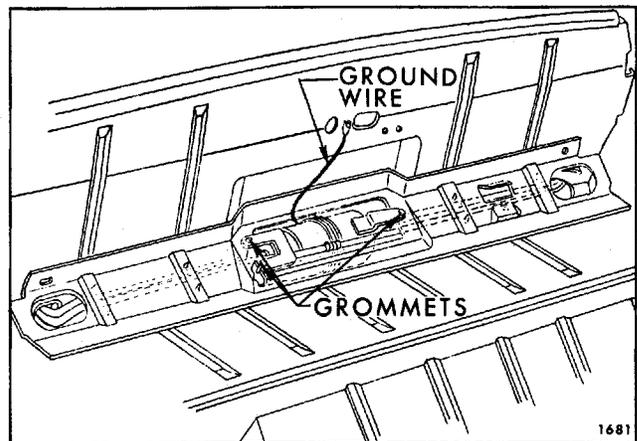


Fig. 6-59—Hydro-Lectric Motor And Pump Assembly

**NOTE:** Venting reservoir is necessary in this "sealed-in" unit to equalize air pressure in reservoir to that of the atmosphere. This operation prevents the possibility of hydraulic fluid being forced under pressure from disconnected lines and causing damage to trim or body finish.

11. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid. (Figs. 6-58 and 6-59). Use a cloth to absorb any leaking fluid, then remove unit from rear compartment.

**Installation**

1. If a replacement unit is being installed, fill reservoir unit with specified Delco No. 11 Hydraulic Fluid (GM Hydraulic Brake Fluid Super No. 11 or its equivalent). See "Filling of Hydro-Lectric Reservoir".
2. Connect hydraulic hoses, engage attaching grommets in panel and connect wiring.
3. Connect battery and operate top through its up and down cycles until all air has been "bled" from hydraulic circuit. See "Filling of Hydro-Lectric Reservoir".
4. Check connections for leaks and recheck fluid level in reservoir.
5. Install all previously removed parts.

**RESERVOIR TUBE**

**Disassembly From Motor and Pump Assembly**

1. Remove motor and pump assembly from body.
2. Scribe a line across pump end plate and reservoir tube to insure a correct assembly of parts. See Fig. 6-61.
3. With a straight-bladed screwdriver, remove reservoir filler plug. Note sealing ring around plug.
4. Drain fluid from reservoir into a clean container.
5. With suitable tool, remove bolt from end of assembly and remove reservoir tube. Note sealing rings around bolt and between end of reservoir tube and pump cover plate assembly.

**Assembly To Motor and Pump Assembly**

1. Position sealing ring on pump and assembly reservoir tube to pump according to scribe marks.

**NOTE:** Bracket assembly on tube should be located at outer end when tube is assembled to pump.

2. Install and tighten attaching bolt.

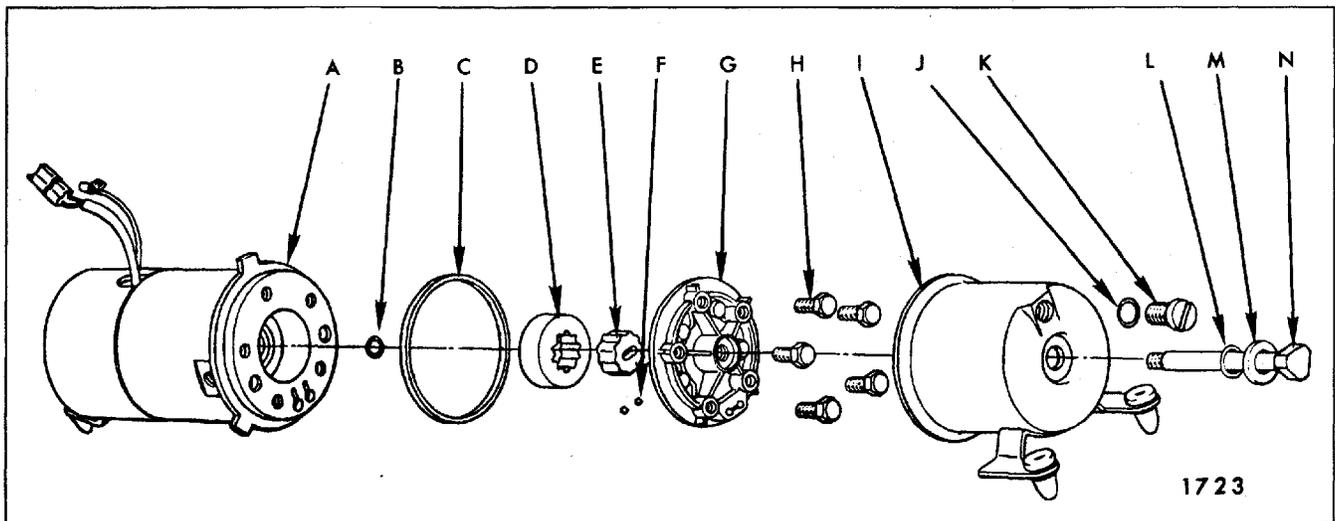


Fig. 6-60—Hydro-Lectric Motor And Pump Disassembled

- |                              |  |  |
|------------------------------|--|--|
| A. Motor Assembly            | F. Fluid Control Valve Balls           | K. Reservoir Filler Plug                     |
| B. Motor Shaft "O" Ring Seal | G. Pump Cover Plate Assembly           | L. Reservoir End Plate Attaching Bolt        |
| C. Reservoir Seal            | H. Pump Cover Attaching Screws         | "O" Ring Seal                                |
| D. Outer Pump Rotor          | I. Reservoir Tube And Bracket Assembly | M. Reservoir End Plate Attaching Bolt Washer |
| E. Inner Pump Rotor          | J. Reservoir Filler Plug "O" Ring Seal | N. Reservoir End Plate Attaching Bolt        |

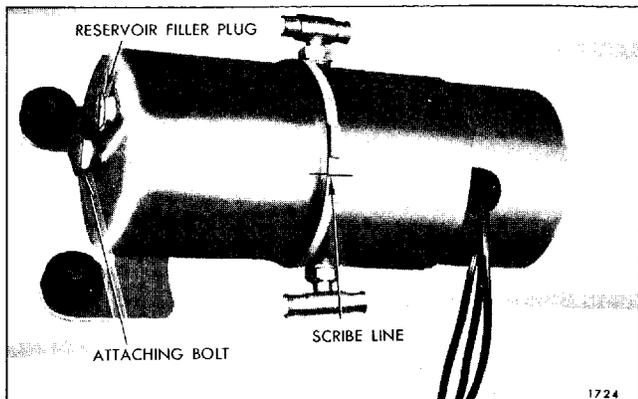


Fig. 6-61—Hydro-Lectric Motor And Pump Assembly

- Place unit in horizontal position and fill with fluid until fluid level is within 1/4" of lower edge of filler plug hole.
- Make sure that sealing ring is on filler plug before installing filler plug.

## OPERATION OF FOLDING TOP

When the control switch is actuated to the "up" position, the battery feed wire is connected to the red motor lead and the motor and pump assembly operate to force the hydraulic fluid through the hoses to the lower ends of the double-acting cylinders. The fluid forces the piston rods in the cylinders upward, thus raising the top. The fluid in the top of the cylinders returns to the pump for recirculation to the bottom of the cylinders. When the control switch knob is actuated to the "down" position, the feed wire is connected to the dark green motor lead and the motor and pump assembly operate in a reversed direction to force the hydraulic fluid through the hoses to the top of the cylinders. The fluid forces the piston rods in the cylinders downward, thus lowering the top. The fluid in the bottom of the cylinders returns to the pump for recirculation to the top of the cylinders.

## OPERATION OF PUMP ASSEMBLY

The rotor type pump assembly is designed to deliver a maximum pressure in the range of 340 psi to 380 psi. The operation of the pump assembly when raising the top is as follows:

- Raising the Top.** When the red motor lead is energized the motor drive shaft turns the rotors clockwise as indicated by the large arrow in Figure 6-62. The action of the pump rotors forces the fluid under pressure to the bottom of each cylinder forcing the piston

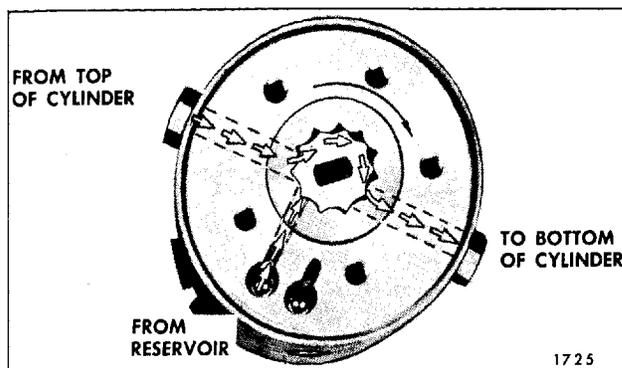


Fig. 6-62—Operation Of Pump To Raise Top

upward. This action causes the fluid above the piston in each cylinder to be forced into the pump, which recirculates the fluid to the bottom of the cylinders. The additional fluid required to fill the cylinder due to piston displacement is drawn from the reservoir.

- Lowering the Top.** When the green motor lead is energized the motor drive shaft turns the rotors counterclockwise as indicated by the large arrow in Figure 6-63. The action of the pump rotors forces the fluid under pressure to the top of each cylinder. This action causes the fluid below the piston in each cylinder to be forced into the pump which recirculates the fluid to the top of each cylinder. The surplus hydraulic fluid due to piston rod displacement flows into the reservoir.

## FLUID CONTROL VALVE

The fluid control valve consists of a rocker arm installed in the pump cover plate, and two steel balls. Figure 6-64 shows the top surface of the pump cover plate. The dotted lines indicate the cavities on the bottom side of the cover plate. The cavities are designed to permit fluid flow between

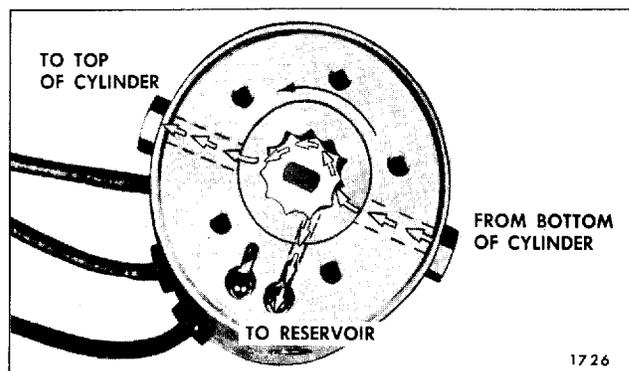


Fig. 6-63—Operation Of Pump To Lower Top

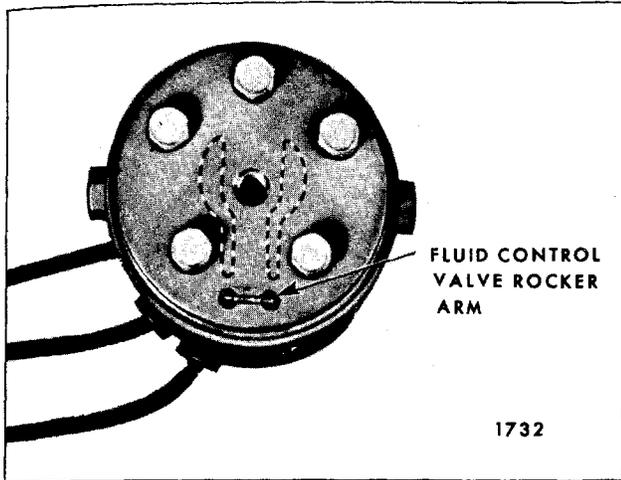


Fig. 6-64—Pump Cover Plate

pump rotors and the reservoir. Figure 6-65 and Figure 6-66 illustrates the operation of the fluid control valve.

### MECHANICAL CHECKING PROCEDURE

If there is a failure in the hydro-lectric system and the cause is not evident the mechanical operation of the top should first be checked. If the folding top assembly appears to have a binding action, disconnect the top lift cylinder piston rods from the top linkage and then manually raise and lower the top. The top should travel through its up and down cycle without any evidence of binding action. If a binding action is noted when the top is being locked at the header, check the alignment of the door windows, ventilators and rear quarter windows with relation to the side roof rail weatherstrips. Make all necessary adjustments for correct top alignment. See "Folding Top Adjustments". If a failure continues to exist after a check for mechanical failure has been completed, the hydro-lectric system should then be checked for electrical or hydraulic failures.

### ELECTRICAL CHECKING PROCEDURE

If a failure in the hydro-lectric system continues to exist after the mechanical operation has been checked, the electrical system should then be checked. A failure in the electrical system may be caused by a low battery, breaks in wiring, faulty connections, mechanical failure of an electrical component, or wires or components shorting to one another or to body metal. Before beginning checking procedures, check battery according to recommended procedure.

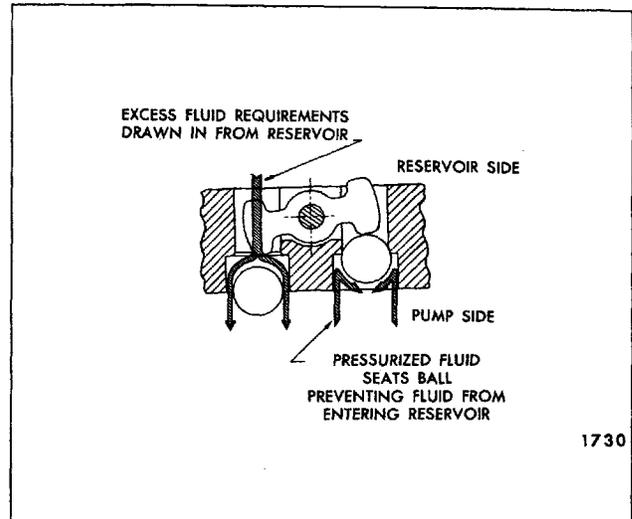


Fig. 6-65—Fluid Control Valve,

### 1. Check for Current at Folding Top Control Switch.

- a. Disengage terminal block from rear of switch.
- b. Connect light tester to central feed terminal of switch terminal block.
- c. Ground light tester ground lead to body metal.
- d. If light tester does not light, there is an open or short circuit between power source and switch.

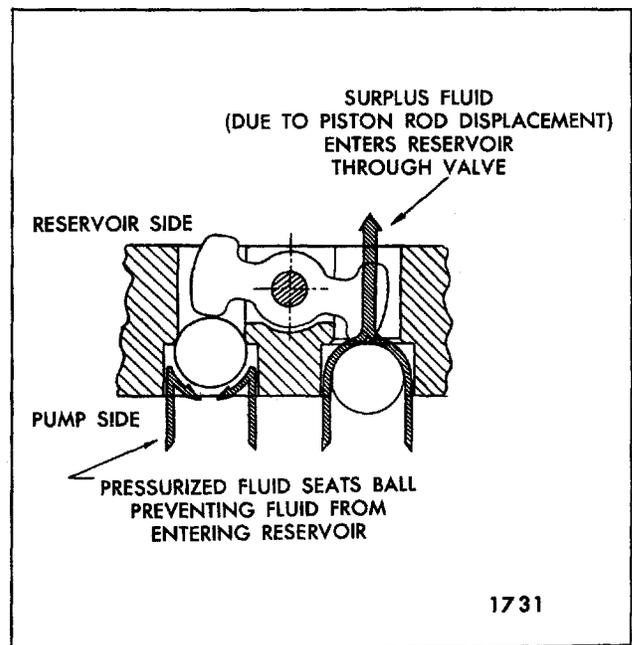


Fig. 6-66—Fluid Control Valve

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