

SECTION 13

FOLDING TOP

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FOLDING TOP TRIM ASSEMBLY (COMPLETE)

DESCRIPTION

The "A", "B" and "C" style convertible tops incorporate a one-piece rear belt rail trimstick assembly which mounts directly to the folding top male hinges. For trim repair and replacement purposes, the one-piece trimstick can be disconnected from the male hinges and raised above the rear belt rail. The trimstick, with due care in handling and removal, maintains its full shape and is sufficiently stiff for tacking or stapling operations.

On "F" and "Z" convertible styles, the rear trimstick is of three-piece construction and is secured to the body by attaching bolts completely around the rear belt rail.

All convertible top cover assemblies incorporate a spring loaded hold-down cable along the sides. The cables are retained in a pocket sewn to the top cover and are secured at the front and rear ends

by screws. Under tension, the cables are designed to form a tight fit of the top cover to the side rails to minimize air leakage along the side roof rails.

All "A", "B", and "C" convertible back curtains utilize an integral solid - tempered back window glass. "F" and "Z" convertible styles are equipped with a pliable plastic back window.

FOLDING TOP COVER AND BACK CURTAIN ASSEMBLY

Removal

1. Apply masking tape to rear quarter pinchweld finishing moldings, and apply cover protection on rear deck and other adjacent painted surfaces.
2. Mark position of top cover vertical edges on back curtain valance at rear belt line. Use sharpened grease pencil (Fig. 13-1).

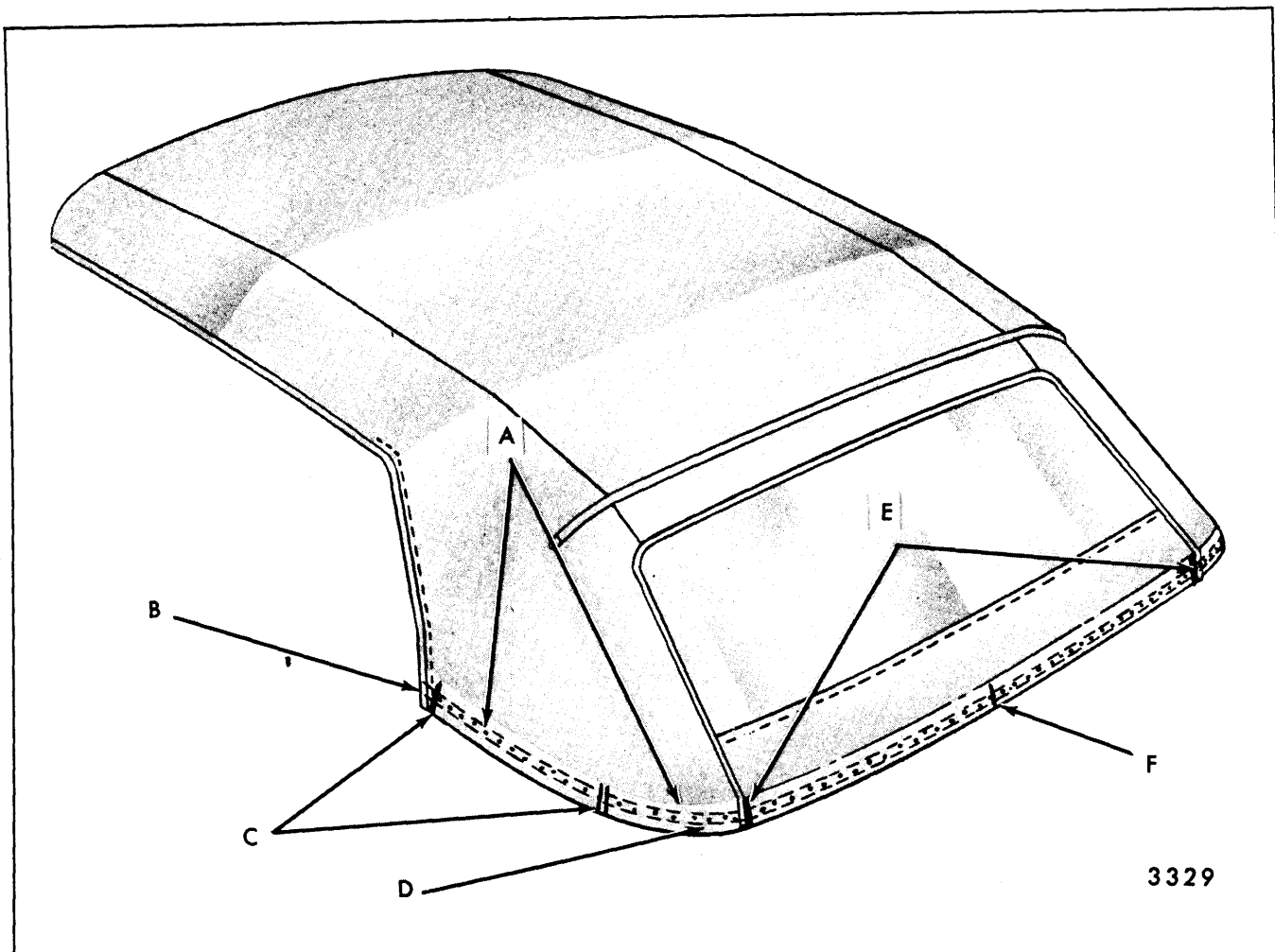


Fig. 13-1—Reference Marks on Top Cover and Back Curtain

A. "A, B, & C" One Piece Trimstick
 B. Trim Line at Corner Varies by Series
 C. "F & Z" Quarter Trim Stick

D. "F & Z" Rear Trim Stick
 E. Top Cover Vertical Edge Reference
 F. Back Curtain Center Reference

3. Remove rear seat cushion. Disconnect rear seat speaker if present, and remove rear seat back.

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

5. Lower top part-way, and remove side roof rail rear and center weatherstrips. Then, lower top to stacked position and remove weatherstrips from front roof rail and side roof front rails.

6. Detach top cover from front roof rail. Then raise top and detach top cover flaps from side roof rear rails. Remove escutcheons and wire-on binding from rear bow. Also, detach top cover at rear bow. Note location and spacing of staples before removal.

7. With front roof rail raised several inches off

windshield header, remove attaching screws from front and rear of each hold-down cable (Views "A" and "B" in Fig. 13-2). Remove cables.

8. At underside of front bow, (Fig. 13-3) remove screws securing listing pocket retainer to front bow. Disengage retainer from bow and remove retainer from listing pocket. Note location of screws before removal.

9. Detach folding top compartment bag from rear seat back panel.

10. Lock top to windshield header and install spacer stick along inboard edge of each side stay pad (Fig.13-4).

Spacer sticks can be fabricated as shown in Figure 13-5. Fit spacer sticks snugly between

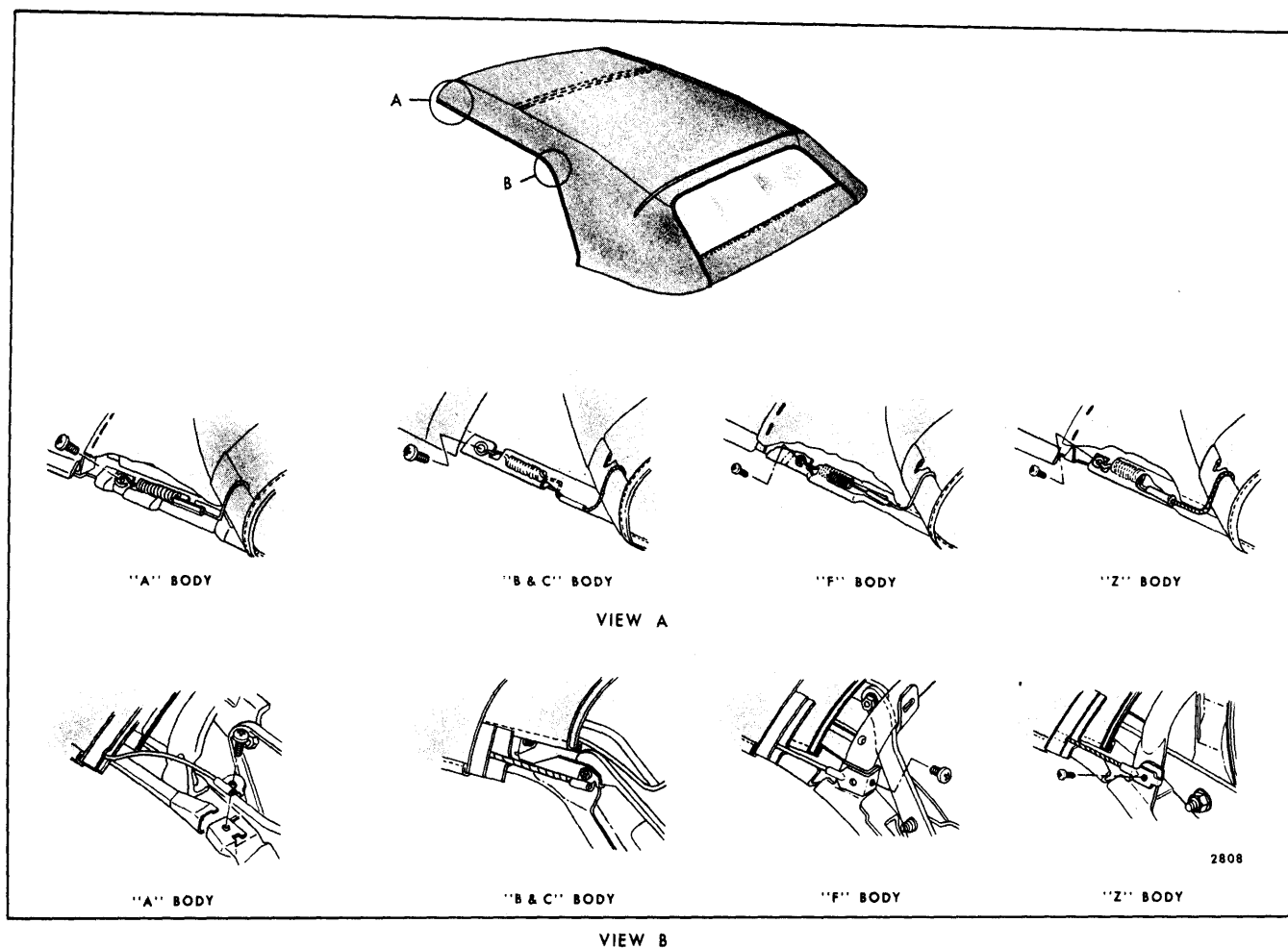


Fig. 13-2—Hold Down Cable Attachment

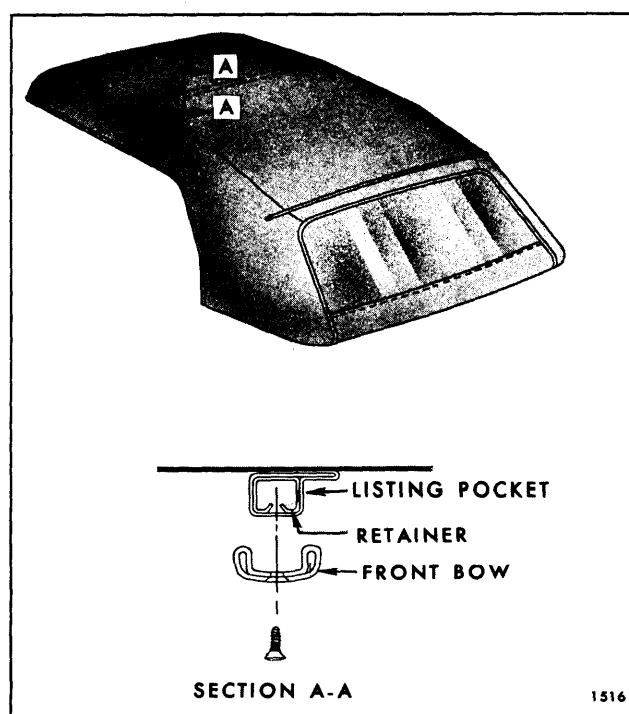


Fig. 13-3—Listing Pocket Retainer

center bow and rear bow, then tighten wing nuts. Spacer sticks are adjustable. Fasten rear bow securely to side roof rear rails.

NOTE: The purpose of spacer sticks is to hold the rear bow in a stationary (car installed) position during back curtain and/or side stay pad removal and installation.

MATERIAL PER STICK

Wood - $\frac{1}{2} \times 1 \times 14\frac{1}{2}$
 Steel - $\frac{1}{32} \times \frac{1}{2} \times 2\frac{1}{2}$
 Steel - $\frac{1}{32} \times 1\frac{1}{2} \times 7$
 2 Screw #6 x $\frac{1}{2}$ "
 Bolt $\frac{1}{4}$ - 20 UNC - 2A x 1"
 Wingnut $\frac{1}{4}$ x 20 UNC - 2B
 2 Washers $\frac{1}{4}$ " I.D.

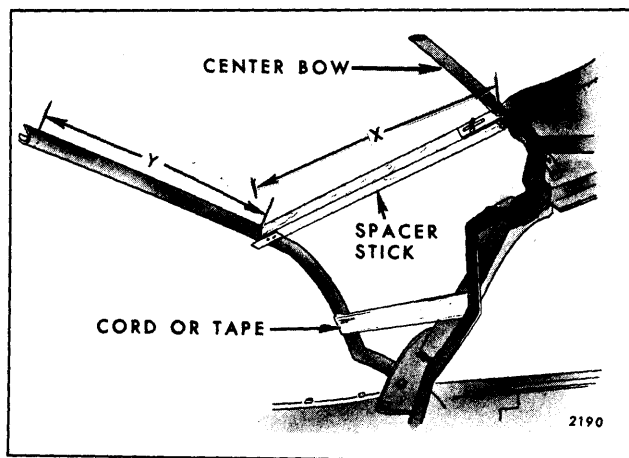


Fig. 13-4—Spacer Stick Installation

11. Raise front roof rail several inches off windshield header and disconnect rear trimstick(s), as required, by removing attaching bolts.

On "A" styles, use a suitable box-socket type wrench to remove each bolt from "outside" surface of male hinge (Fig. 13-6 and 13-7).

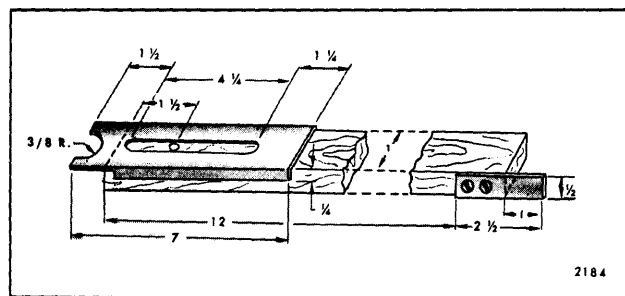


Fig. 13-5—Spacer Stick Fabrication

On "B" and "C" styles, use a conventional type socket and extension to remove each bolt from "inside" surface of male hinge (Fig. 13-8).

On "F" and "Z" styles, remove trimstick attaching bolts by working through rear compartment; or by working inside car. If inside car, access to attaching bolts may be gained by raising and fastening forward end of top compartment bag to center bow (Fig. 13-9 and 13-10).

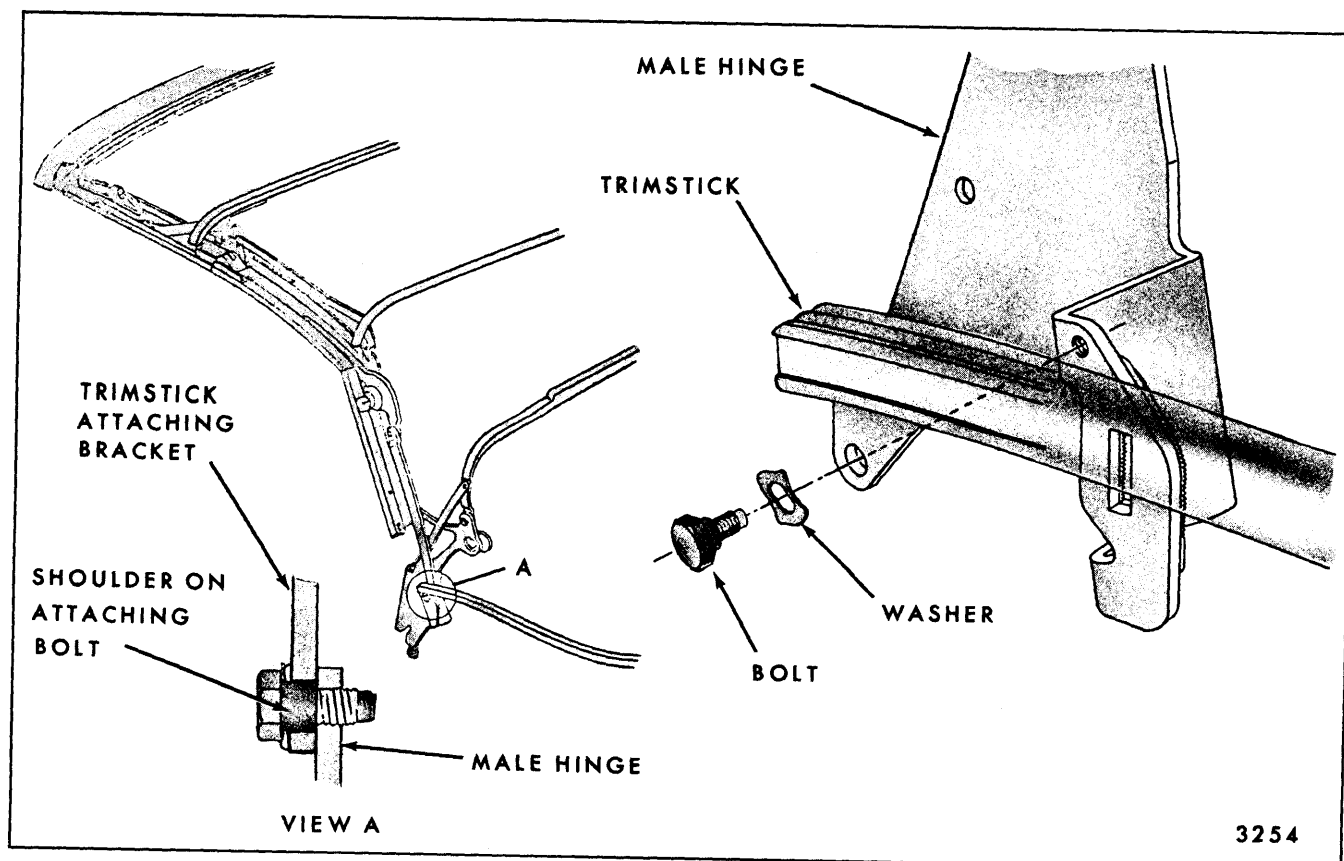


Fig. 13-6—Trimstick Attachment "A" Styles

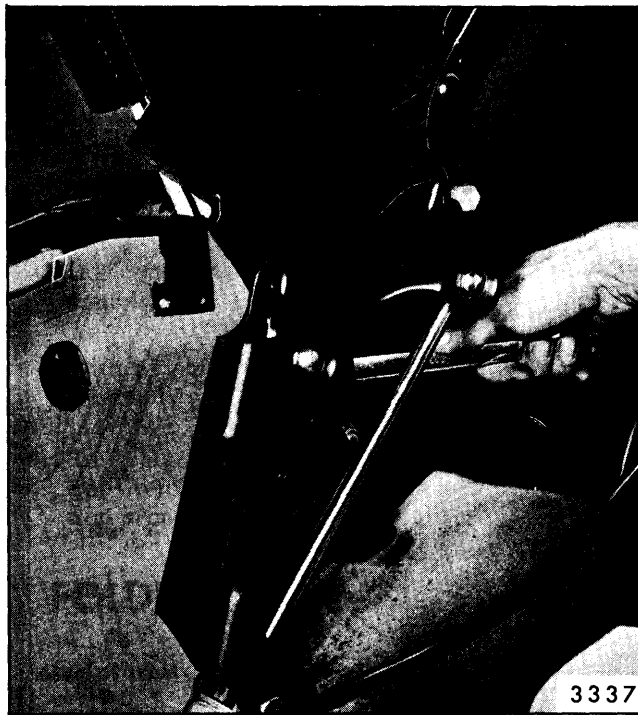


Fig. 13-7—Trimstick Removal "A" Styles

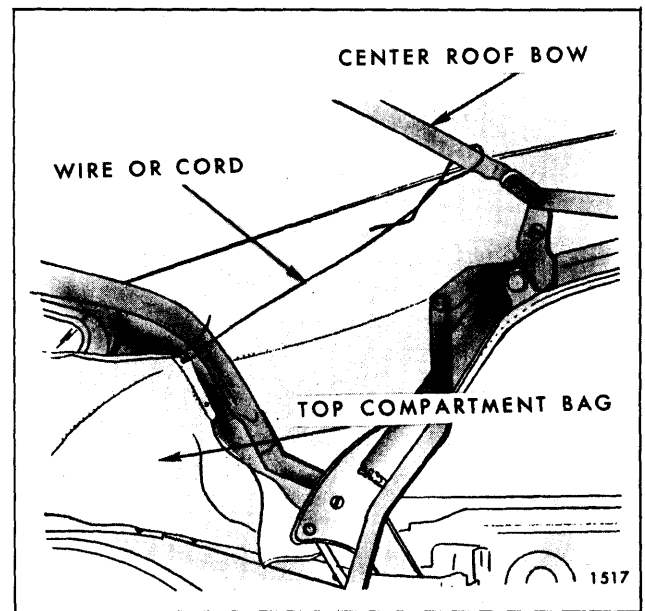


Fig. 13-9—Raising Folding Top Compartment Bag

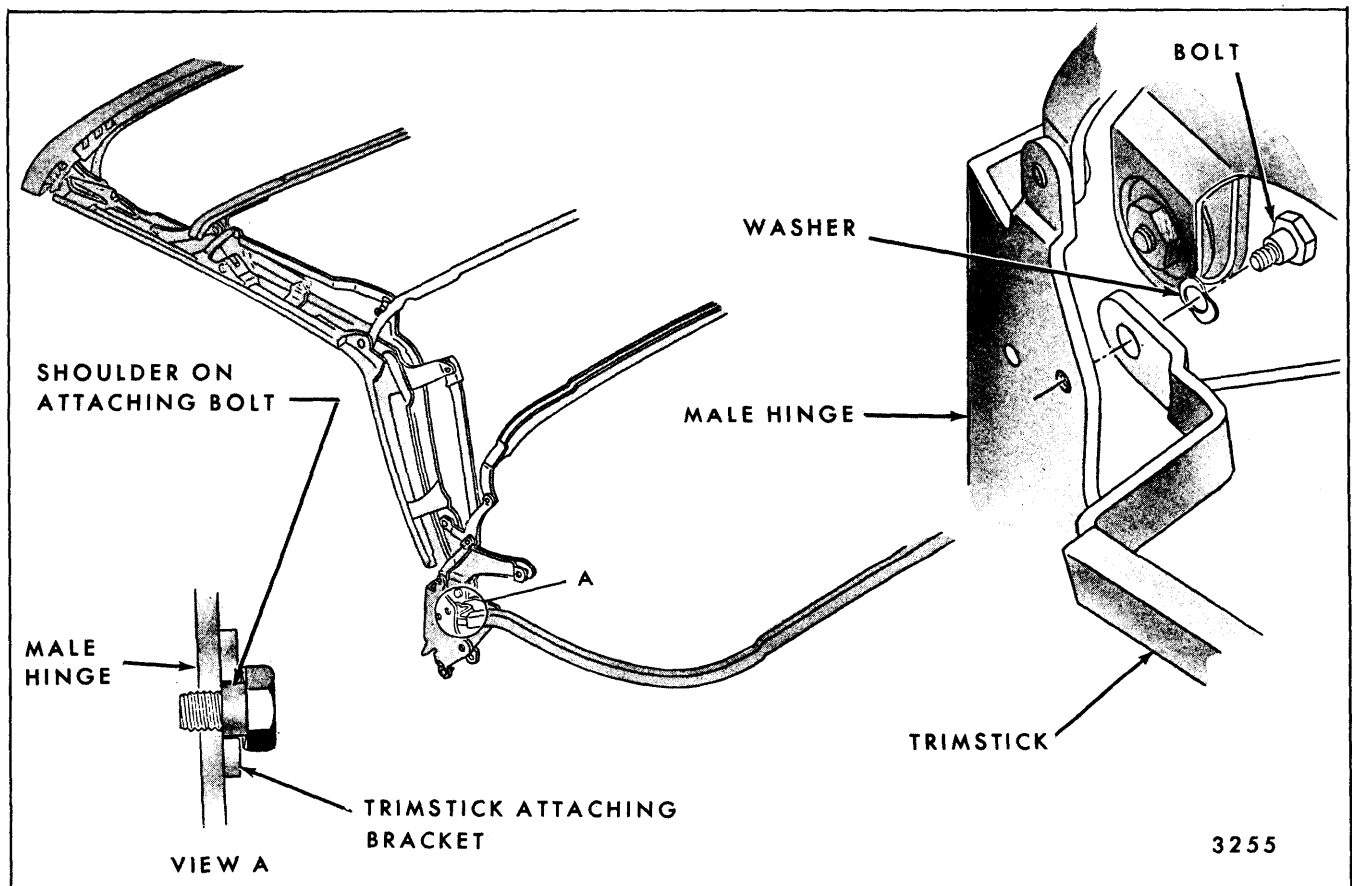


Fig. 13-8—Trimstick Attachment "B & C" Styles

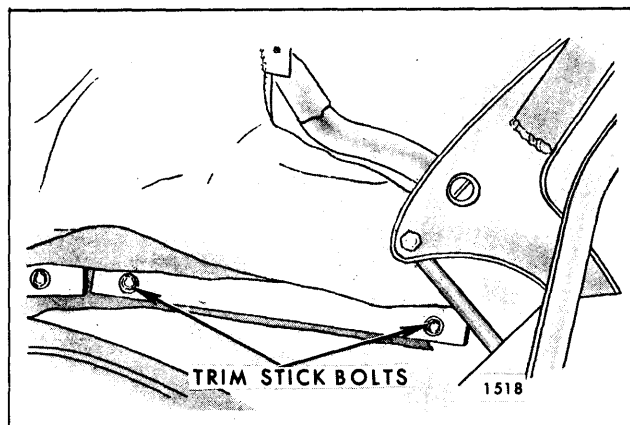


Fig. 13-10—Quarter Trimstick "F & Z" Styles

12. Remove rear trimstick(s) from body and position above quarter pinchweld finishing moldings.

On "A" styles, with top two to four inches off header, move one end of trimstick inward for clearance. Then pry it upward between hinge and body to clear rear side roof rail (Fig. 13-11). Raise removed end of trimstick upward and forward. Then continue by removing balance of trimstick above body belt line (Fig. 13-12 and 13-13).

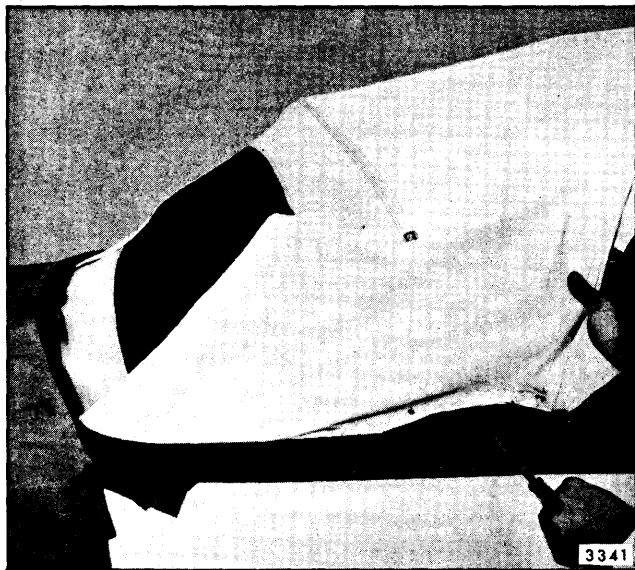


Fig. 13-11—Raising End of Trimstick "A" Styles

On "B" and "C" styles, with top two to four inches off header, move both ends of trimstick down and forward after obtaining clearance at hinges.

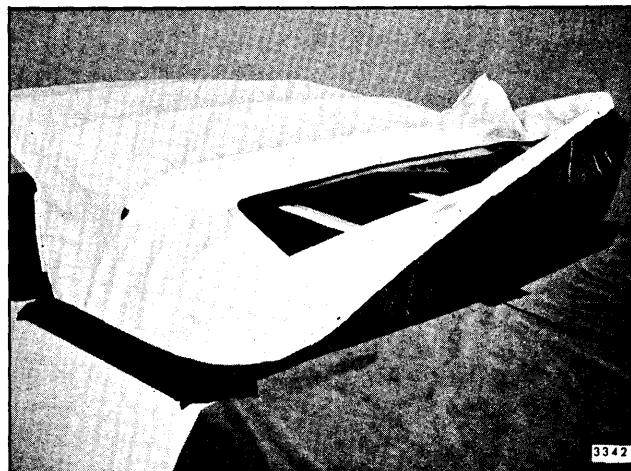


Fig. 13-12—Raising Balance of Trimstick "A" Styles

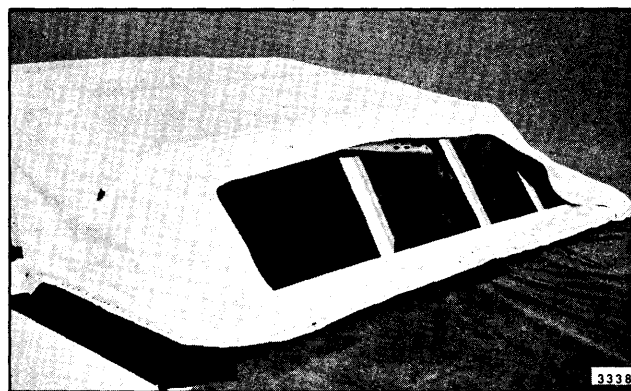


Fig. 13-13—Trimstick Removed "A" Styles

CAUTION: Avoid contact with or damage to top lift cylinder piston rod.

Then, move one side of trimstick inward for rear radius of trimstick to clear body radius. Raise one radius of trimstick from body; raise opposite radius of trimstick from body; (Fig. 13-14) then, with aid of helper, lift remainder of trimstick above body belt line.



Fig. 13-14—Removing Trimstick From Top Compartment "B & C" Styles

13. Perform this operation on car, or later on bench:

Using a suitably sharp pencil, accurately mark location of complete rear trimstick(s) (upper and lower edges and ends) on outer surface of top cover and on back curtain. Re-check, and mark right and left inner vertical edge of top cover on back curtain at trim stick (Fig. 13-1). Make center mark on curtain at "V" notch on trimstick.

14. Detach and remove top cover from rear trimstick(s). Accurately mark location of balance of trimstick(s) on back curtain. Note spacing of staples before removal.
15. Detach back curtain from rear bow and, with the aid of a helper, remove rear trimstick(s) with attached back curtain and top compartment

bag from body. Place on clean, protected surface. Note location and spacing of staples before removal.

16. Re-check accuracy of trimstick location markings on back curtain, and remove curtain from trimstick(s). Note location and spacing of staples before removal.
17. Remove polyurethane and side stay pads. Stay pads are secured with tacks or staples to front roof rail, front roof bow and rear roof bow, and with screws to center bow (Fig. 13-15 and 13-16).

NOTE: On Cadillac styles, silencer assembly must be removed prior to side stay pad webbing. For Removal and Installation procedure, refer to Silencer Assembly section.

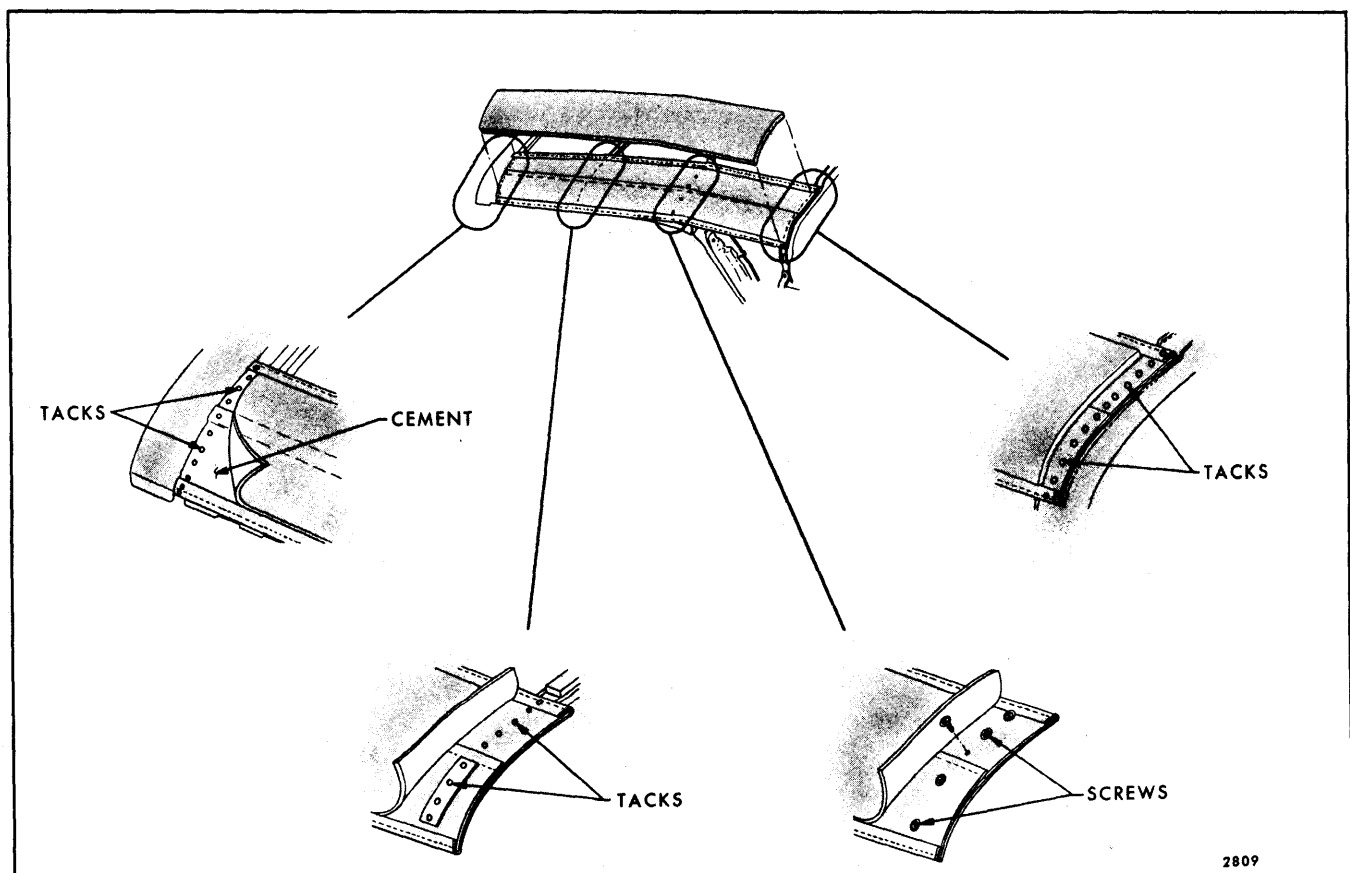


Fig. 13-15—Side Stay Pad Attachment

FOLDING TOP SILENCER ASSEMBLY CADILLAC STYLES

The Silencer Assembly consists of a piece of dead-

ener material sewn to a lining type material which is serviced as a complete kit. The Silencer Assembly is installed in such a manner as to cover the area between the front roof rail and front roof

bow, and from the right side stay pad to the left side stay pad (Fig. 13-16).

Removal of Silencer Assembly

1. Lower top to stacked position.

2. Remove front roof rail front and rear weatherstrips.
3. Remove side rail front weatherstrips.
4. Detach folding top material from front roof rail (Fig. 13-17).

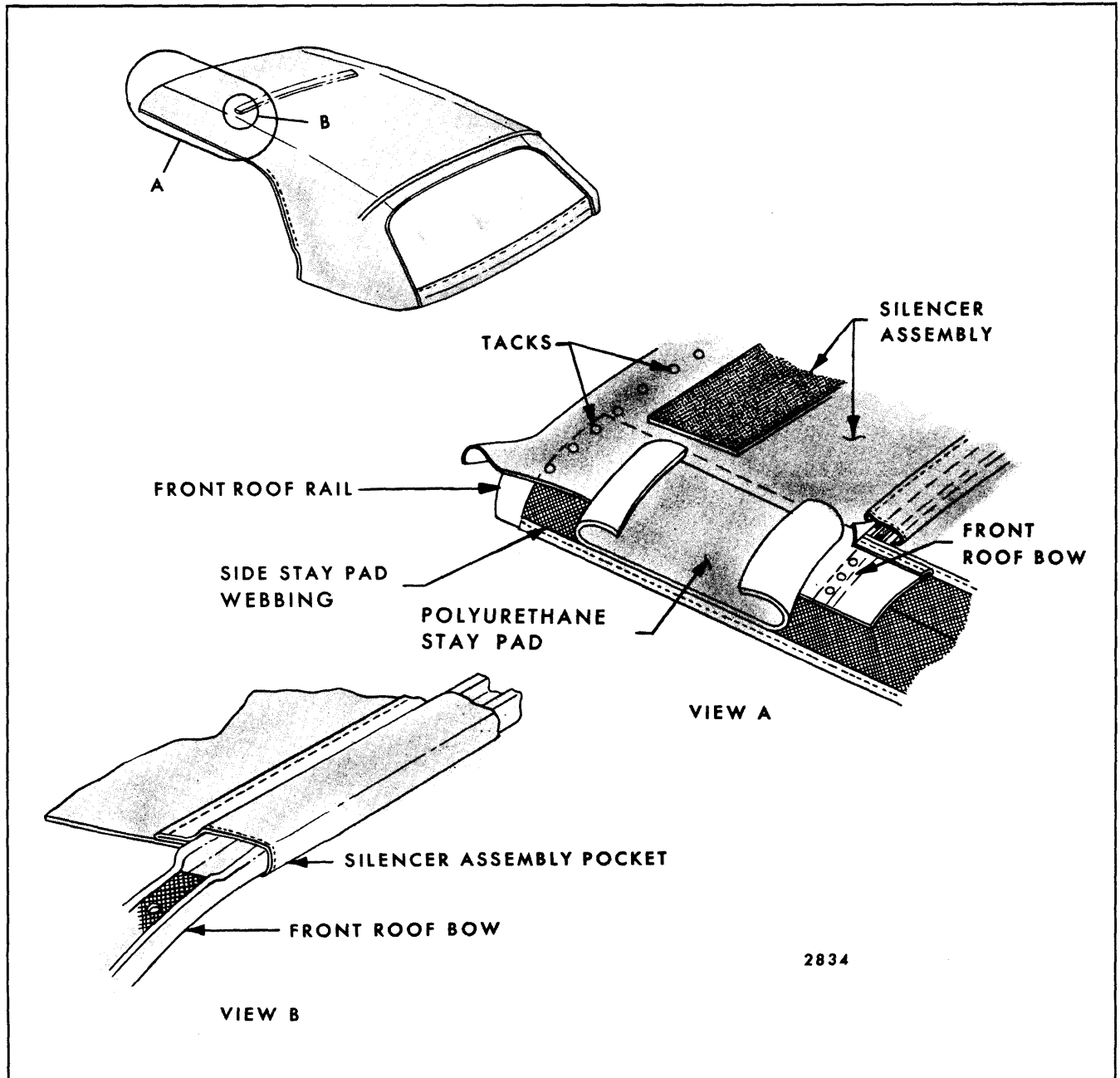


Fig. 13-16—Folding Top Silencer Installation - Cadillac Styles

5. Detach top material flaps from side roof front rails.
6. With front roof rail raised slightly above

windshield header, remove hold down cable screws at front and rear roof rails (View "A", Fig. 13-25).

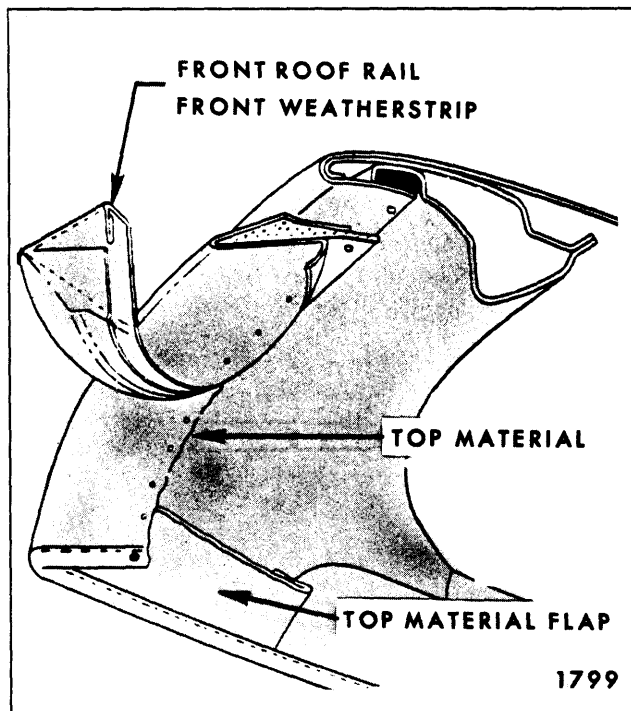


Fig. 13-17—Top Cover at Front Roof Rail

7. At underside of front roof bow, remove screws securing listing pocket retainer to bow (Fig. 13-3).
8. "Peel" folding top material rearward until front roof bow is exposed.
9. From front roof rail to front roof bow, remove polyurethane stay pad.
10. Remove tacks from front roof rail securing Silencer Assembly.
11. Remove Silencer Assembly from entire front roof rail and stay pad webbing (silencer is cemented).
12. Remove screw securing front roof bow to right folding top side roof front rail to front bow link.
13. Slide pocket on Silencer Assembly off front roof bow and remove silencer from car.

Installation of Silencer Assembly

1. With deadener pad on top side of assembly, slip pocket on assembly over front roof bow (View "B", Fig. 13-16).
2. Secure right side of front bow to side roof front rail-to-front bow link.

3. Apply nitrile type cement to stay pad webbing and to front roof rail.
4. Stretching assembly taut, cement assembly to front roof rail and stay pad webbing.

NOTE: Prior to cementing make certain assembly is centered.

5. Tack outboard ends of assembly to front roof rail (View "A", Fig. 13-16).
6. Cement side polyurethane stay pad to assembly.
7. Refer to steps 16 thru 21 of Installation procedure for Folding Top Cover and Back Curtain.
8. When completed, folding top should be free from wrinkles and draws. Install all previously removed hardware and weatherstrips.

FOLDING TOP COVER AND BACK CURTAIN ASSEMBLY

Installation

1. With front roof rail locked at windshield header, and with rear bow spacer sticks firmly in place, install side stay pads. Align stay pads with depression in rear bow and tack to secure. Pull stay pads forward for snug fit and tack to front roof rail. Tack stay pads to front bow. Secure stay pads to center bow with screws. Check alignment of polyurethane padding on stay pads to determine cementing area, and remove. Apply an approved trim cement to stay pads uniformly and install polyurethane padding (Fig. 13-15). Trim off selvage end (excess material) of stay pads just forward of rear rolled edge of rear bow. Also, trim at front roof rail as required.
2. Transfer reference marks from removed back curtain to new one as follows: Place new back curtain on clean covered bench with inner surface down. Position removed back curtain correspondingly over new one. Carefully align upper window over lower one. While holding both curtains together securely, carefully lay out trim material of both curtains and transfer following reference marks along bottom: location of trimstick(s) (upper and lower trimstick edges, as well as ends); location of inner vertical edges of top cover; on "F" and "Z" styles, location of bolt holes. Allow 1/2 inch of back curtain material to extend below trimstick(s) (Fig. 13-18 and 13-19).

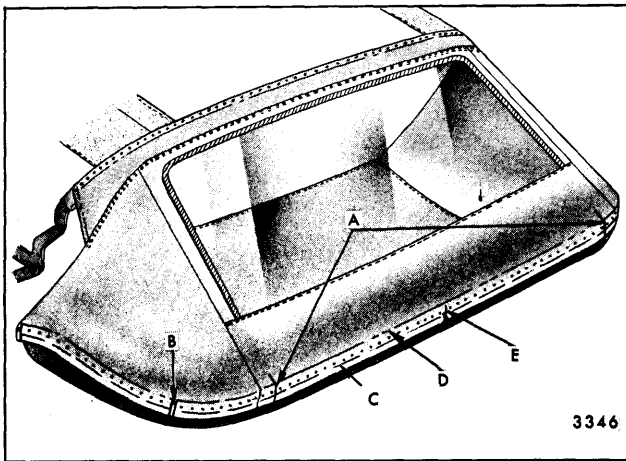
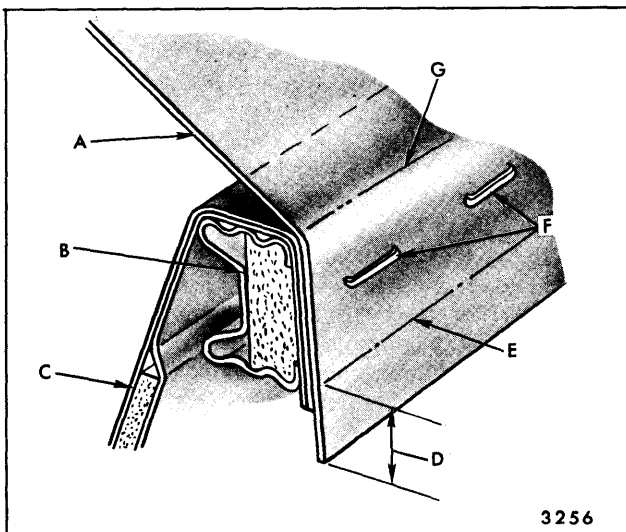


Fig. 13-18—Back Curtain Installation

- A. Top Cover Rear Vertical Edge References
- B. "F & Z" Quarter and Rear Trimstick Ends
- C. Trimstick Lower Edge Reference
- D. Trimstick Upper Edge Reference
- E. Back Curtain Center Reference

Fig. 13-19—Cross Section at Rear Trimstick -
"A, B & C" Styles

- A. Back Curtain
- B. Rear Belt Rail Trimstick Assembly
- C. Folding Top Compartment Bag
- D. 1/2 inch over-hang
- E. Lower Edge Reference Mark
- F. Staples
- G. Upper Edge Reference Mark

Then reverse back curtains by positioning new curtain over removed one as described above. Re-check location of reference marks.

NOTE: If any difference is noted, the average

between the two is the correct reference to use. Mark corrected references clearly.

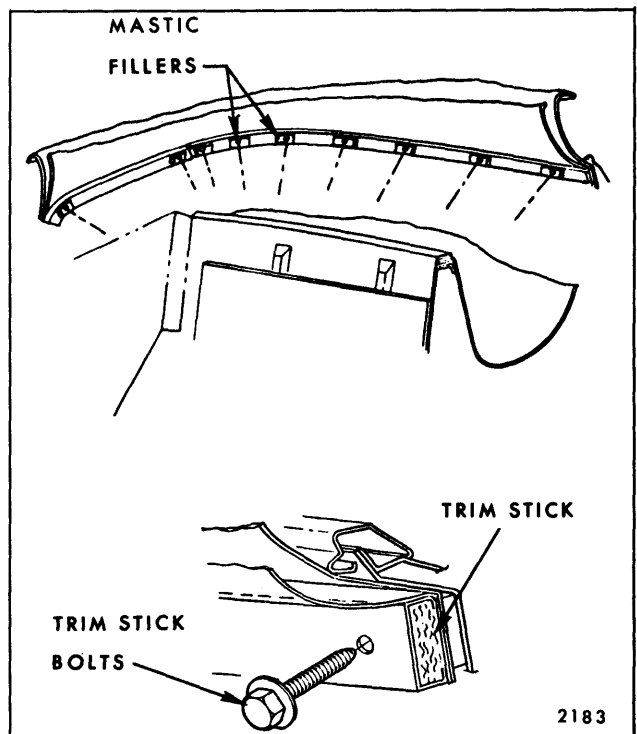
Along bottom, trim off excess material beyond the 1/2 inch allowance. Transfer center mark from bottom center of removed curtain to new one.

IMPORTANT: Transfer of reference marks must be done in a highly exacting manner for best results and minimum rework.

3. As a bench operation, position and center new back curtain to trimstick(s) according to reference marks and tack curtain to trimstick(s). Tack from center to ends. Avoid stretching, but keep material flat during tacking operations.

On "F" and "Z" styles, place tacks close to each side of every bolt hole in trimsticks. Then cut out or punch holes for bolts in curtain.

4. On "F" and "Z" styles, inspect and, if necessary, install mastic type fillers around holes of folding top compartment rear panel for proper sealing of bolts (Fig. 13-20).

Fig. 13-20—Checking Trim Stick Fillers -
"F & Z" Styles

5. Transfer reference marks from removed top cover to new one as follows: Place new top

cover on a suitable clean surface, such as on clean roof of a car to provide proper contour and fullness, with inner surface of cover down. Position removed top cover over new one. Carefully align back window opening upper corners and rear quarter upper corners of both covers. Secure both covers together at these locations. Carefully lay out trim material of sail area of both covers.

Transfer location marks for trimstick(s) (upper and lower trimstick edges, as well as ends, Fig. 13-24).

Then reverse position of covers by positioning new cover over removed one, as described above. Re-check location of reference marks.

NOTE: If any difference is noted, the average between the two is the correct reference to use. Mark corrected references clearly.

On "F" and "Z" styles, also transfer bolt hole locations. Allow for 1/2 inch of top cover to extend beyond trimstick(s) (Fig. 13-19). Along bottom, trim off excess material beyond 1/2 inch over-hang.

IMPORTANT: Transfer of reference marks must be done in a highly exacting manner for best results and minimum rework.

6. As a bench operation, position and locate top cover to trimstick(s) according to reference marks and tack top cover to trimstick(s). Tack from top cover inner vertical edge reference on back curtain toward front. Avoid excessive stretching, but keep material flat during tacking operations (Fig. 13-24).

On "F" and "Z" styles, place tacks close to each side of every bolt hole in trimstick(s). Then cut out or punch holes for bolts in top cover.

7. With aid of a helper, position rear trimstick(s), with attached bag, cover and back curtain, on rear deck of body. Use care in protecting trim material and back window during this operation. With front roof rail slightly off header, position bag in folding top well and stay-tack edge of back curtain to rear bow to protect back window during trimstick installation. Also, lay top cover on folding top framework.
8. Position rear trimstick(s) into body in reverse of removal operations (See Step 12 of Removal of Folding Top and Back Curtain Trim Assembly, Fig. 13-12 or 13-14).
9. Secure rear trimstick(s) to body assembled position and tighten all attaching bolts (Fig. 13-27, 13-29 and 13-31).

10. With front roof rail locked to windshield header, and with top cover laying on rear deck, tack back curtain to rear bow as follows: Remove all stay tacks except two at outer ends supporting back curtain. Then pull curtain forward to remove all fullness and tack curtain to rear bow. Tack from center toward each end of curtain. Remove stay tacks. Apply forward tension to curtain at each point of tack installation (Fig. 13-21).

CAUTION: On "A", "B", and "C" styles, be sure one-piece trimstick is flush to quarter pinchweld finishing molding during all tacking operations. This will require assistance of a helper or a support.

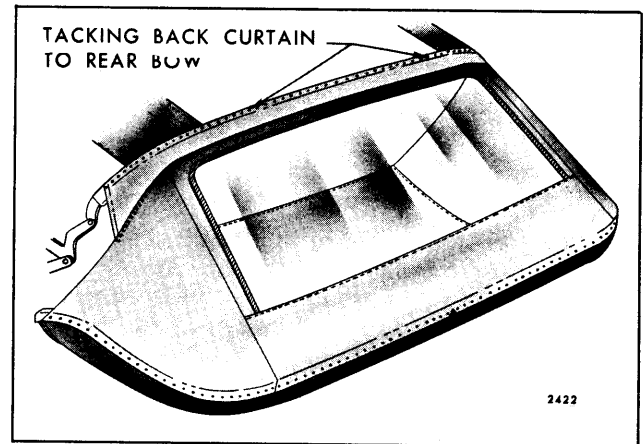


Fig. 13-21—Tacking Back Curtain

11. Insert hold-down cables into top cover listing pockets and secure as follows:

Raise front roof rail slightly above windshield header. A length of welding rod or equivalent wire can be used to facilitate cable insertion by pulling cable through listing pocket. Install attaching screw at rear of cable. Then, apply forward pull on cable and install front attaching screw (Fig. 13-25).

12. Insert and center retainer in top cover listing pocket at front roof bow. Position retainer on front bow and install attaching screws (Fig. 13-26).
13. Apply nitrile cement or neoprene type weather-strip adhesive to cementing surfaces of side roof rear rails and to quarter flaps. Center top cover over rear bow and align quarter flap seams with edges of side roof rear rails to remove all fullness from rear of top cover. A forward draw on cover outer sides will aid this operation. With quarter flap seams aligned with each rear rail, cement quarter flaps securely in place.

NOTE: Top cover may require some lateral stretching along rear bow to achieve proper fit of quarter flaps to rear rails, and to remove fullness from top cover valance over rear window.

14. Using an awl or equivalent tool, pierce flaps for side roof rear rail weatherstrip attaching screws. Install weatherstrips to help maintain position of quarter flaps while adhesive is drying.
15. While pulling top cover rearward slightly to straighten material over rear window, install tacks to secure cover to rear bow.

IMPORTANT: Tacks must be installed in a straight line in center of rear bow. Tacks outboard of deck seams should not exceed 6 inches. Also, tacking distance outboard of deck seams on each side should be uniform. Pierce hole into top material and tacking strip at each outboard end of rear bow for wire-on binding clip escutcheons.

16. Lock front roof rail to windshield header. Pull top cover straight forward at seams to desired top fullness. While maintaining tension on cover over front roof rail, make pencil mark on cover outer surface along forward edge of front roof rail (Fig. 13-22).

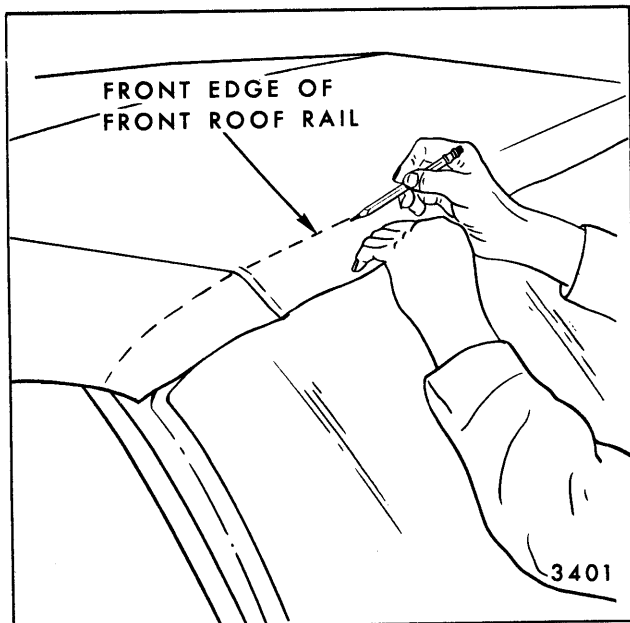


Fig. 13-22—Marking Top Cover at Front Roof Rail

17. Lower top to stacked position. Carefully, apply nitrile cement or neoprene weatherstrip adhesive to cementing area of front roof rail, to

corresponding surface of top cover, and to front corner flaps.

18. Raise top within four inches of windshield header and support roof rail on header with suitable wood block. Secure cover to front roof rail by pulling top cover reference marks slightly beyond target so that pencil marks will be slightly under front edge of roof rail. With doors open, align sides of top cover with forward pull, and secure corner flaps to cemented surfaces. Remove wood block and complete cementing top cover to front roof rail. Lower top and install several stay tacks.
19. Raise top and lock to windshield header. Check appearance of top trim, top operation and locking action of top. If additional tension is needed in top cover, repeat Step 18 and pull top cover further forward. Stay tack and re-check top for proper appearance and operation.
20. Lower top and complete tacking of top cover to front roof rail. Trim off excess material (Fig. 13-23).

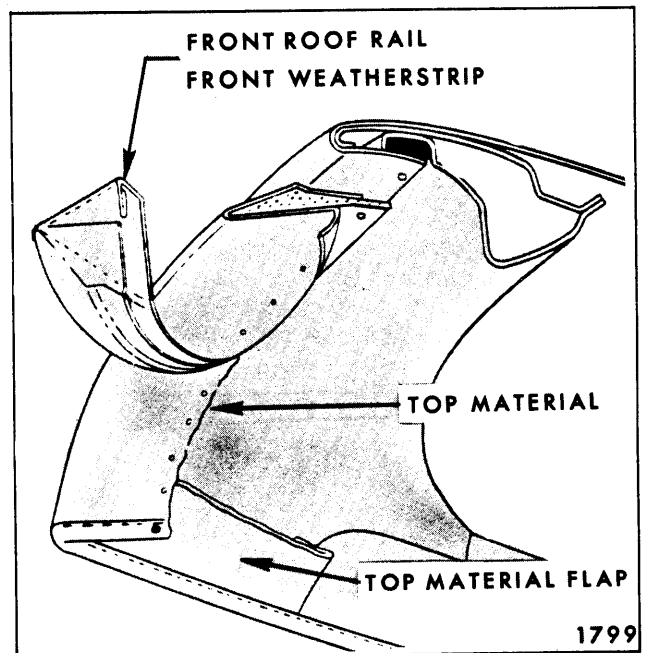


Fig. 13-23—Top Cover at Front Roof Rail

21. Carefully align, seal and install front roof rail and side roof rail weatherstrips.
22. Raise top, and using due caution, apply a bead of neoprene-type weatherstrip adhesive around each rear bow tack head and into two holes pierced into top material for wire-on binding clip escutcheon screws. Applied adhesive must be within area covered by wire-on binding.

23. Install rear bow wire-on binding and escutcheons. Tack from center outward to maintain a snug and straight fit. Length of binding outside of deck seams should not exceed 6 inches and should be of uniform length on each side.
 24. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware. Clean up top material and car as required.
2. Mark position of top cover vertical edges on back curtain valance at rear belt line. Use sharpened grease pencil (Fig. 13-24).
 3. Remove rear seat cushion. Disconnect rear seat speaker, if present, and remove rear seat back.
 4. Remove right and left folding top compartment side trim panels.
 5. Lower top part-way, and remove side roof rail rear and center weatherstrips. Then lower top to stacked position and remove weatherstrips from front roof rail, and side roof front rails.
 6. Detach top cover from front roof rail. Then raise top and detach top cover flaps from side roof rear rails. Remove escutcheons and wire-on binding from rear bow. Also, detach top

FOLDING TOP COVER LESS BACK CURTAIN

Removal

1. Apply masking tape to rear quarter pinchweld finishing moldings, and apply cover protection on rear deck and other adjacent painted surfaces.

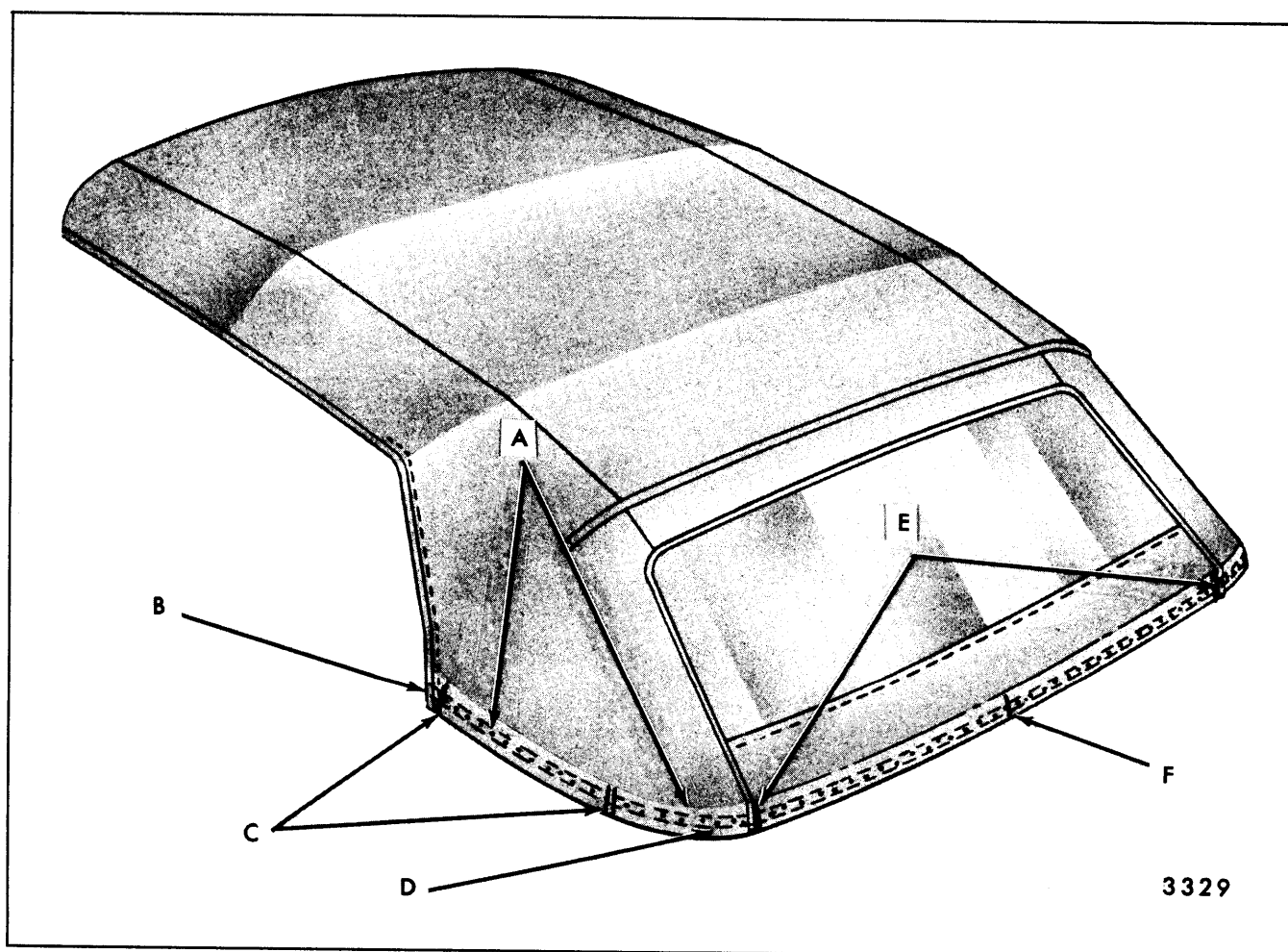


Fig. 13-24—Reference Marks on Top Cover and Back Curtain

A. "A, B, & C" One Piece Trimstick
 B. Trim Line at Corner Varies by Series
 C. "F & Z" Quarter Trim Stick

D. "F & Z" Rear Trim Stick
 E. Top Cover Vertical Edge Reference
 F. Back Curtain Center Reference

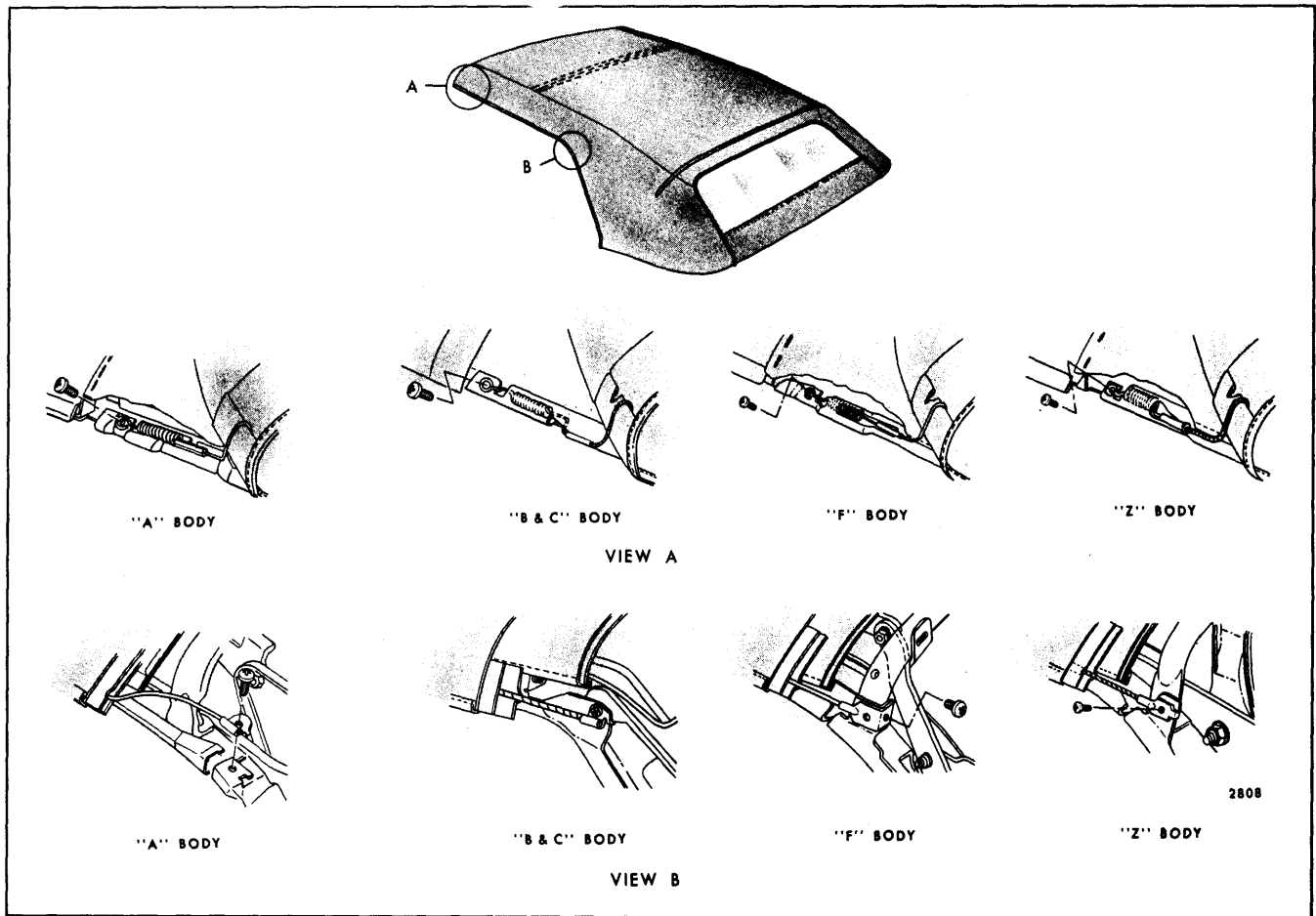


Fig. 13-25—Hold Down Cable Attachment

cover at rear bow. Note location and spacing of staples before removal.

7. With front roof rail several inches off windshield header, remove attaching screws from front and rear of each hold-down cable (Views "A" and "B" in Fig. 13-25) and remove cables.
8. At underside of front bow, (Fig. 13-26) remove screws securing listing pocket retainer to front bow. Disengage retainer from bow and remove retainer from listing pocket. Note location of screws before removal.
9. Detach folding top compartment bag from rear seat back panel.
10. With front roof rail several inches off windshield header, disconnect rear trimstick(s), as required, by removing attaching bolts.

On "A" styles, use a suitable box-socket type wrench to remove each bolt from "outside" surface of male hinge (Fig. 13-27 and 13-28).

On "B" and "C" styles, use a conventional type socket and extension to remove each bolt

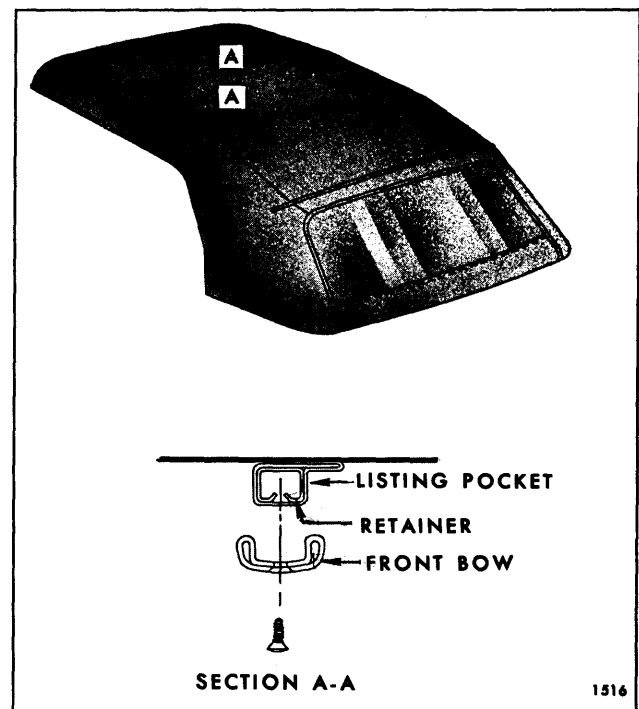


Fig. 13-26—Listing Pocket Retainer

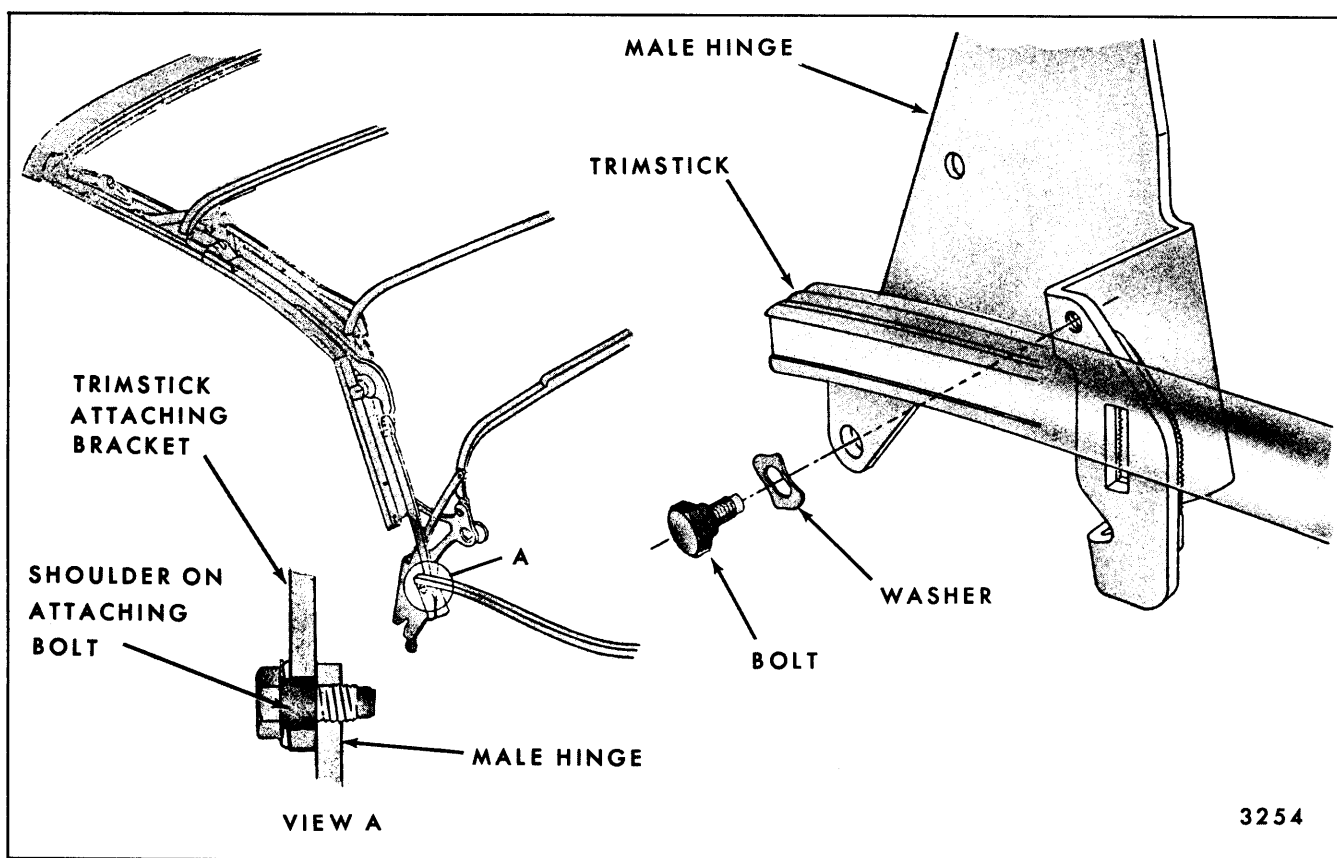


Fig. 13-27—Trimstick Attachment "A" Styles

from "inside" surface of male hinge (Fig. 13-29).

On "F" and "Z" styles, remove trimstick attaching bolts by working inside car or through rear compartment. If inside car, access to attaching bolts may be gained by raising and fastening forward end of top compartment bag to center roof bow (Fig. 13-30 and 13-31).

11. Remove rear trimstick(s) from body and position above quarter pinchweld finishing moldings as follows:

On "A" styles, with top two to four inches off header, move one end of trimstick inward for clearance. Then pry it upward between hinge and body to clear rear roof rail (Fig. 13-32). Raise removed end of trimstick upward and forward. Then continue by removing balance of trimstick above body belt line (Fig. 13-33 and 13-34).

On "B" and "C" styles, with top two to four inches off header, move both ends of trimstick "down" and "forward" after obtaining clearance at hinges.

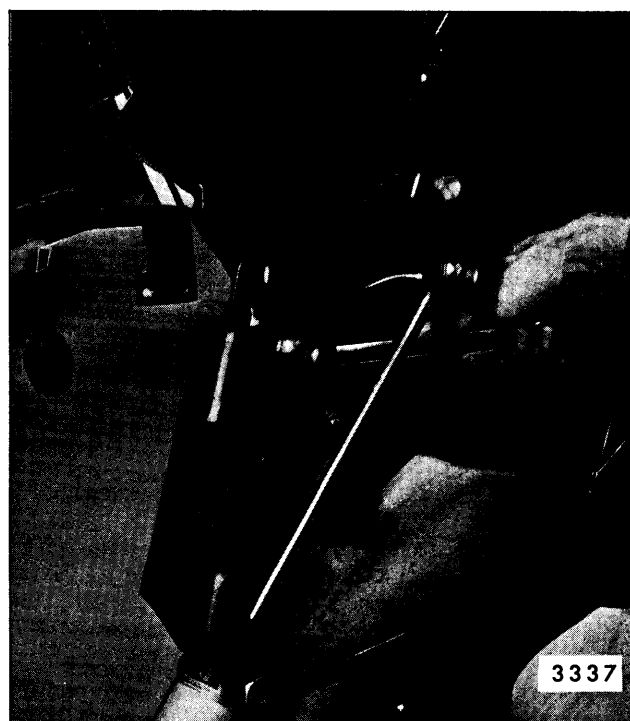


Fig. 13-28—Trimstick Removal "A" Styles

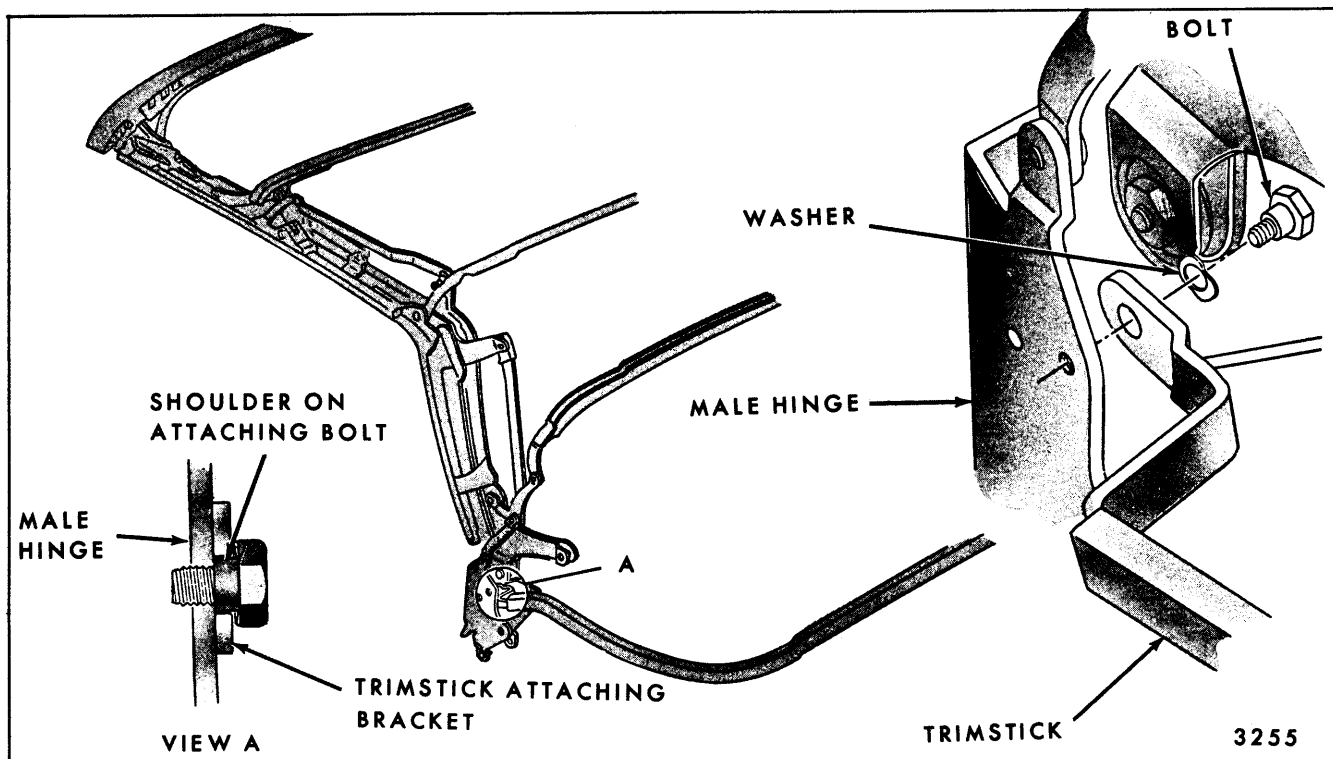


Fig. 13-29—Trimstick Attachment "B & C" Styles

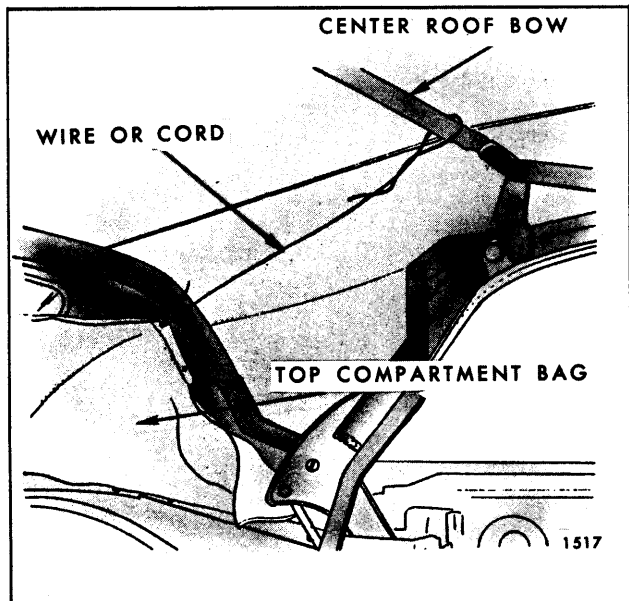


Fig. 13-30—Raising Folding Top Compartment Bag

CAUTION: Avoid contact with or damage to top lift cylinder piston rod.

Then, move one side of trimstick inward for rear radius of trimstick to clear body radius. Raise one radius of trimstick from body; raise opposite radius of trimstick from body (Fig. 13-35), then, lift remainder of trimstick above body belt line.

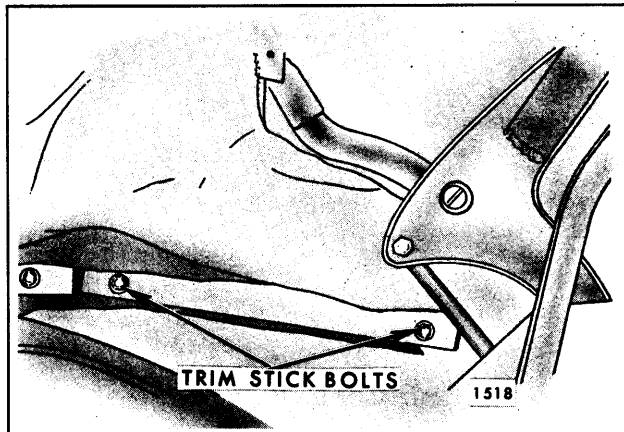


Fig. 13-31—Quarter Trimstick "F & Z" Styles

12. Using a suitably sharp pencil, accurately mark location of complete rear trimstick(s) (upper and lower edges, and ends) on outer surface of top cover. Re-check, and mark right and left inner vertical edge of top cover on back curtain at trim stick (Fig. 13-24).
13. Detach top cover from rear trimstick(s) and remove. Note spacing of staples before removal.

Installation

1. Transfer reference marks from removed top

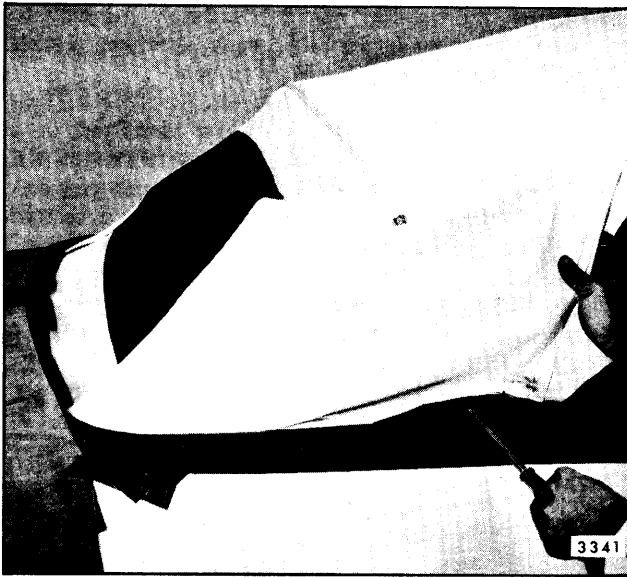


Fig. 13-32—Raising End of Trimstick "A" Styles

cover to new one as follows: Place new top cover on a suitable clean surface, such as on clean roof of a car to provide proper contour and fullness, with inner surface of cover down.

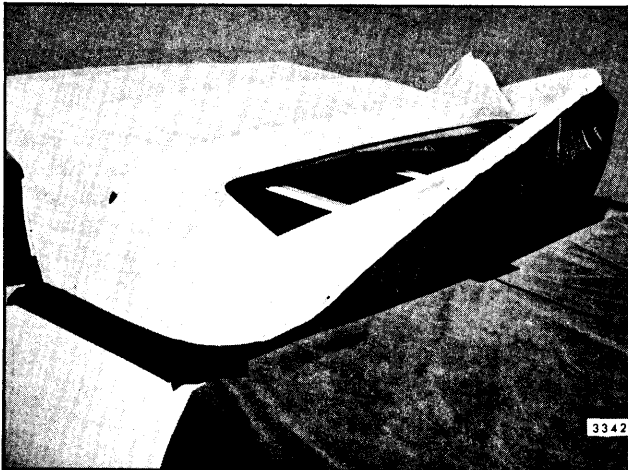


Fig. 13-33—Raising Balance of Trimstick "A" Styles

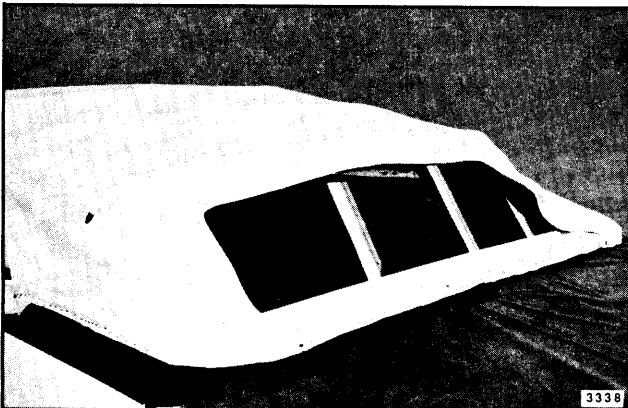


Fig. 13-34—Trimstick Removed "A" Styles

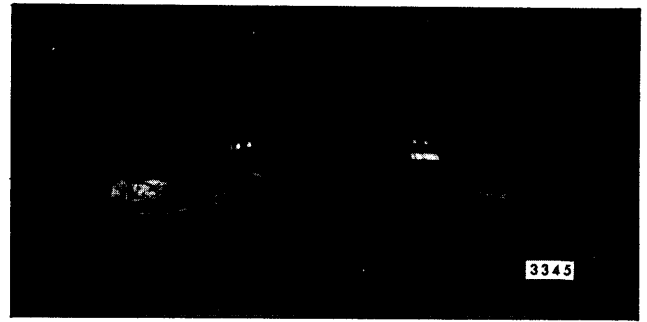


Fig. 13-35—Removing Trimstick From Top Compartment "B & C" Styles

Position removed top cover over new one. Carefully align back window opening upper corners and rear quarter upper corners of both covers. Secure both covers together at these locations. Carefully lay out trim material of sail area of both covers.

Transfer location marks for trimstick(s) (upper and lower trimstick edges, as well as ends, Fig. 13-24).

Then reverse position of covers by positioning new cover over removed one, as described above. Re-check location of reference marks.

NOTE: If any difference is noted, the average between the two is the correct reference to use. Mark corrected references clearly.

On "F & Z" styles, also transfer bolt hole locations. Allow for 1/2 inch of top cover to extend beyond trimstick(s) (Fig. 13-36 and 13-24). Along bottom, trim off excess material beyond 1/2 inch over-hang.

IMPORTANT: Transfer of reference marks must be done in a highly exacting manner for best results and minimum rework.

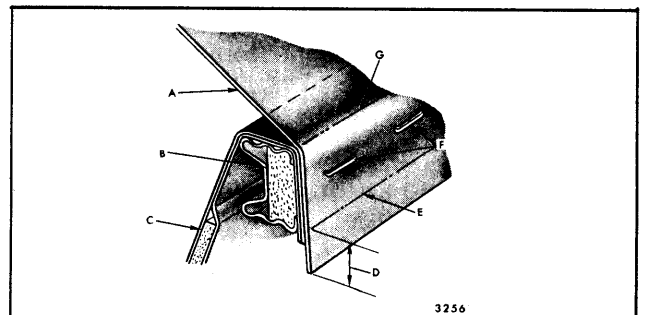


Fig. 13-36—Cross Section at Rear Trimstick - "A, B & C" Styles

- A. Back Curtain
- B. Rear Belt Rail Trimstick Assembly
- C. Folding Top Compartment Bag
- D. 1/2 inch over-hang
- E. Lower Edge Reference Mark
- F. Staples
- G. Upper Edge Reference Mark

2. Place folding top cover on folding top framework. Then, position and locate top cover to trimstick(s) according to reference marks, and tack top cover to trimstick(s). Tack from top cover inner vertical edge reference on back curtain toward front. Avoid excessive stretching, but keep material flat during tacking operations (Fig. 13-24).

On "F" and "Z" styles, place tacks close to each side of every bolt hole in trimstick(s). Then cut out or punch holes for bolts in top cover.

3. Position rear trimstick(s) into body in reverse of removal operation (See Steps 10 & 11 of Removal of Folding Top Cover Less Back Curtain, Fig. 13-33 or 13-35).
4. Secure rear trimstick(s) to body assembled position and tighten all attaching bolts (Fig. 13-43, 13-45 and 13-47).
5. Insert hold-down cables into top cover listing pockets and secure as follows:

Raise front roof rail slightly above windshield header. A length of welding rod or equivalent wire can be used to facilitate cable insertion by pulling cable through listing pocket. Install attaching screw at rear of cable. Then, apply forward pull on cable and install front attaching screw (Fig. 13-25).

6. Insert and center retainer in top cover listing pocket at front roof bow. Position retainer on front bow and install attaching screws (Fig. 13-26).
7. Apply nitrile cement or neoprene-type weatherstrip adhesive to cementing surfaces of side roof rear rails and to quarter flaps. Center top cover over rear bow and align quarter flap seams with edges of side roof rear rails to remove all fullness from top cover. A forward draw on cover outer sides will aid this operation. With quarter flap seams aligned with each rear rail, cement quarter flaps securely in place.

NOTE: Top cover may require some lateral stretching along rear bow to achieve proper fit of quarter flaps to rear rails, and to remove fullness from top cover valance over rear window.

8. Using an awl or equivalent tool, pierce flaps for side roof rail rear weatherstrip attaching screws. Install weatherstrips to help maintain position of quarter flaps while adhesive is drying.

9. While pulling top cover rearward slightly to straighten material over rear window, install tacks to secure cover to rear bow.

IMPORTANT: Tacks must be installed in a straight line in center of rear bow (Fig. 13-37). Tacks outboard of deck seams should not exceed 6 inches. Also, tacking distance outboard of deck seams on each side should be uniform. Pierce hole into top material and tacking strip at each outboard end of rear bow for wire-on binding clip escutcheons.

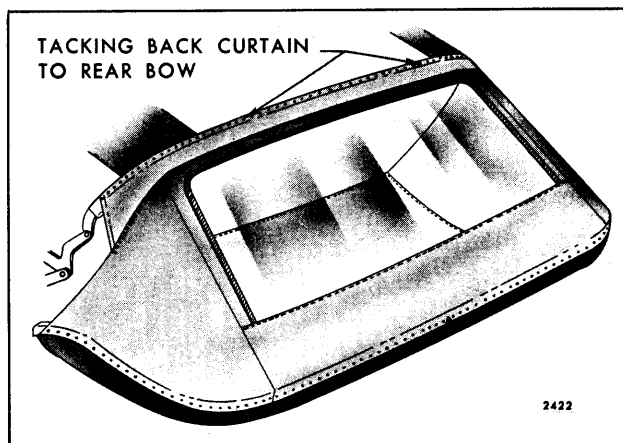


Fig. 13-37—Tacking Back Curtain

10. Lock front roof rail to windshield header. Pull top cover straight forward at seams to desired top fullness. While maintaining tension on cover over front roof rail, make pencil mark on cover outer surface along forward edge of front roof rail (Fig. 13-38).

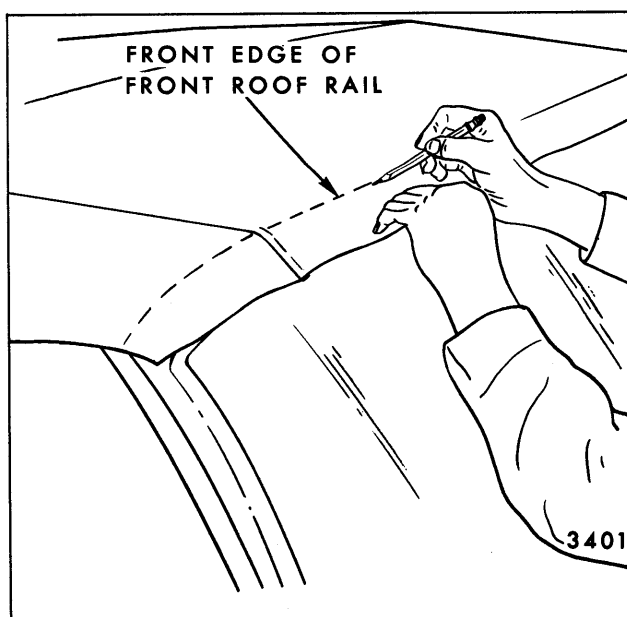


Fig. 13-38—Marking Top at Front Roof Rail

11. Lower top to stacked position. Carefully, apply nitrile cement or neoprene weatherstrip adhesive to cementing area of front rail, to corresponding surface of top cover, and to front corner flaps.
12. Raise top within four inches of windshield header and support roof rail on header with suitable wood block. Secure cover to front roof rail by pulling top cover reference mark slightly beyond target so that pencil marks will be slightly under front edge of roof rail. With doors open, align sides of top cover with forward pull, and secure corner flaps to cemented surfaces. Remove wood block and complete cementing top cover to front roof rail. Lower top and install several stay tacks.
13. Raise top and lock to windshield header. Check appearance of top trim, top operation and locking action of top. If additional tension is needed in top cover, repeat Step 12 and pull top cover further forward. Stay tack and re-check top for proper appearance and operation.
14. Lower top and complete tacking of top cover to front roof rail. Trim off excess material (Fig. 13-39).

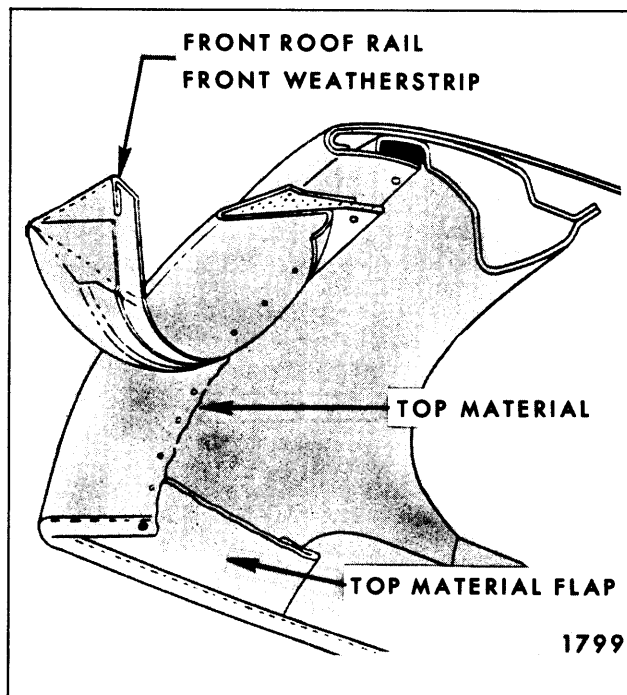


Fig. 13-39—Top Cover at Front Roof Rail

15. Carefully align, seal and install front roof rail and side roof rail weatherstrips.
16. Raise top and using due caution, apply a bead of neoprene-type weatherstrip adhesive around

each rear bow tack head and into two holes pierced into top material for wire-on binding clip escutcheon screws. Applied adhesive must be within area covered by wire-on binding.

17. Install rear bow wire-on binding and escutcheons. Tack from center outward to maintain a snug and straight fit. Length of binding outside of deck seams should not exceed 6 inches and should be of uniform length on each side.
18. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware. Clean up top material and car as required.

BACK CURTAIN ASSEMBLY

Removal

1. Apply masking tape to rear quarter pinchweld finishing moldings, and apply cover protection on rear deck and other adjacent painted surfaces.
2. Mark position of top cover vertical edges on back curtain valance at rear belt line. Use sharpened grease pencil (Fig. 13-40).
3. Remove rear seat cushion. Disconnect rear seat speaker, if present, and remove rear seat back.
4. Remove right and left folding top compartment side trim panels.
5. Lower top part-way, and remove side roof rail rear weatherstrips.
6. Raise and lock top. Mark exact location of following: rear roof bow front and rear edges; wire-on binding escutcheons; and quarter flaps. Note location and spacing of staples before removal. Then, remove escutcheons and wire-on binding. Detach quarter flaps and top cover at rear roof bow.
7. With top several inches off header, remove rear attaching screw from hold-down cables (View "B" Fig. 13-25).
8. Detach folding top compartment bag from rear seat back panel.
9. Lock top to windshield header and install spacer stick along inboard edge of each side stay pad (Fig. 13-41). Spacer sticks can be fabricated as shown in Figure 13-42. Fit spacer sticks snugly between center bow and rear bow, then tighten wing nuts. Spacer sticks are adjustable. Fasten rear bow securely to side roof rear rails.

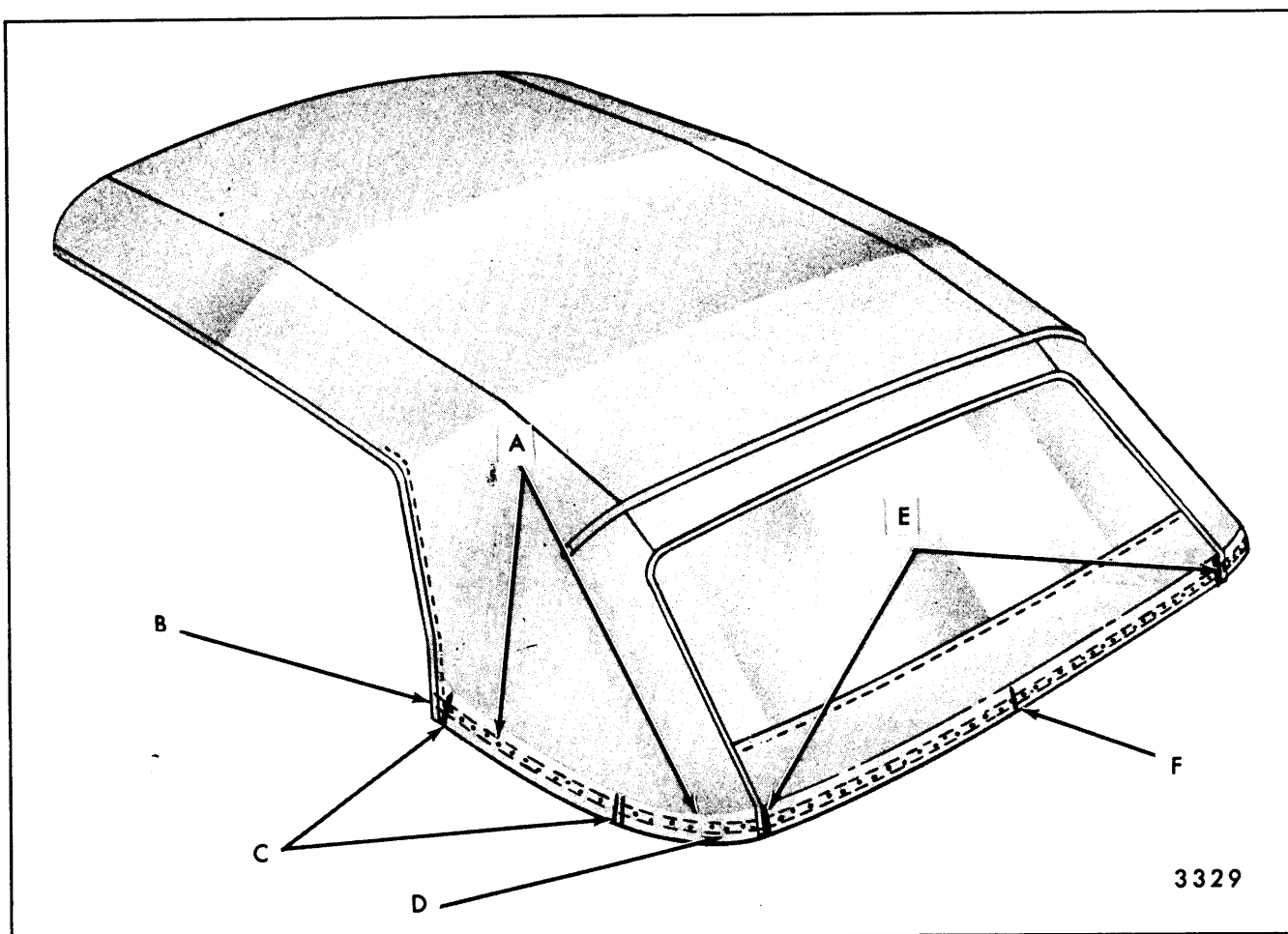


Fig. 13-40—Reference Marks on Top Cover and Back Curtain

- A. "A, B, & C" One Piece Trimstick
 B. Trim Line at Corner Varies by Series
 C. "F & Z" Quarter Trim Stick

- D. "F & Z" Rear Trim Stick
 E. Top Cover Vertical Edge Reference
 F. Back Curtain Center Reference

NOTE: The purpose of spacer sticks is to hold the rear bow in a stationary (car installed) position during back curtain and/or side stay pad removal and installation.

On "B" and "C" styles, use a conventional type socket and extension to remove each bolt from "inside" surface of male hinge (Fig. 13-45).

Material Per Stick

Wood - $\frac{1}{2} \times 1 \times 14\text{-}1\frac{1}{2}$
 Steel - $\frac{1}{32} \times \frac{1}{2} \times 2\text{-}1\frac{1}{2}$
 Steel - $\frac{1}{32} \times 1\text{-}1\frac{1}{2} \times 7$
 2 Screw #6 x $1\frac{1}{2}$ "
 Bolt $\frac{1}{4}$ - 20 UNC - 2A x 1"
 Wingnut $\frac{1}{4}$ x 20 UNC - 2B
 2 Washers $\frac{1}{4}$ " I.D.

10. Raise front roof rail several inches off windshield header and disconnect rear trimstick(s), as required, by removing attaching bolts.

On "A" styles, use a suitable box-socket type wrench to remove each bolt from "outside" surface of male hinge (Fig. 13-43 and 13-44).

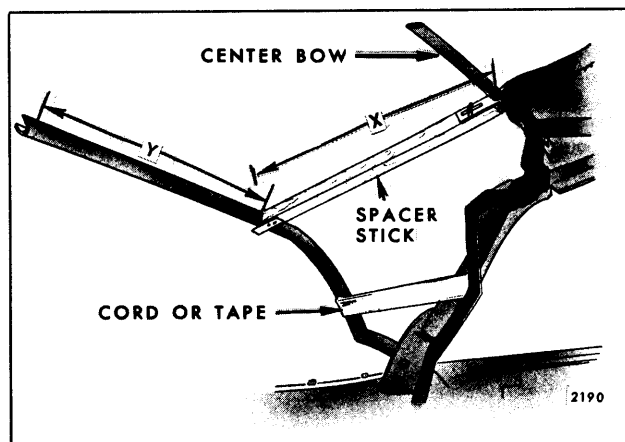


Fig. 13-41—Spacer Stick Installation

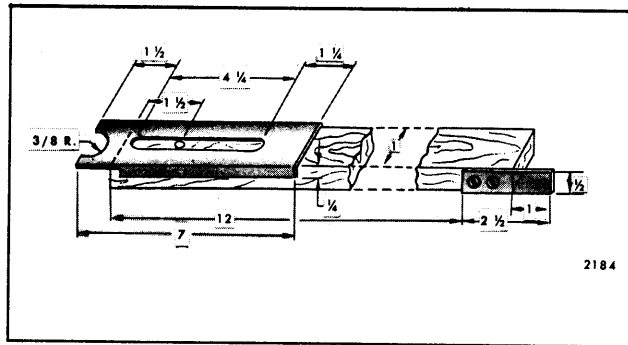


Fig. 13-42—Spacer Stick Fabrication

On "F" and "Z" styles, remove trimstick attaching bolts by working through rear compartment, or by working inside car. If inside car, access to attaching bolts may be gained by raising and fastening forward end of top compartment bag to center roof bow (Fig. 13-46 and 13-47).

11. Remove rear trimstick(s) from body and position above quarter pinchweld finishing moldings.

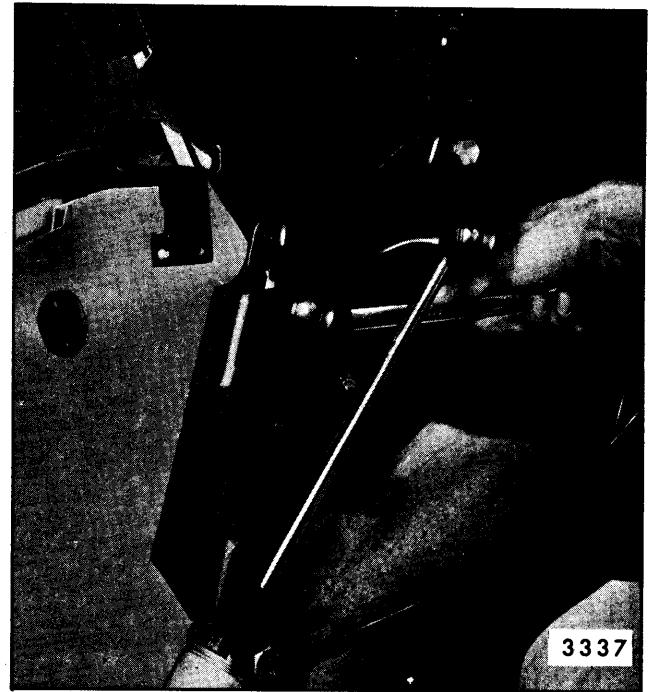


Fig. 13-44—Trimstick Removal "A" Styles

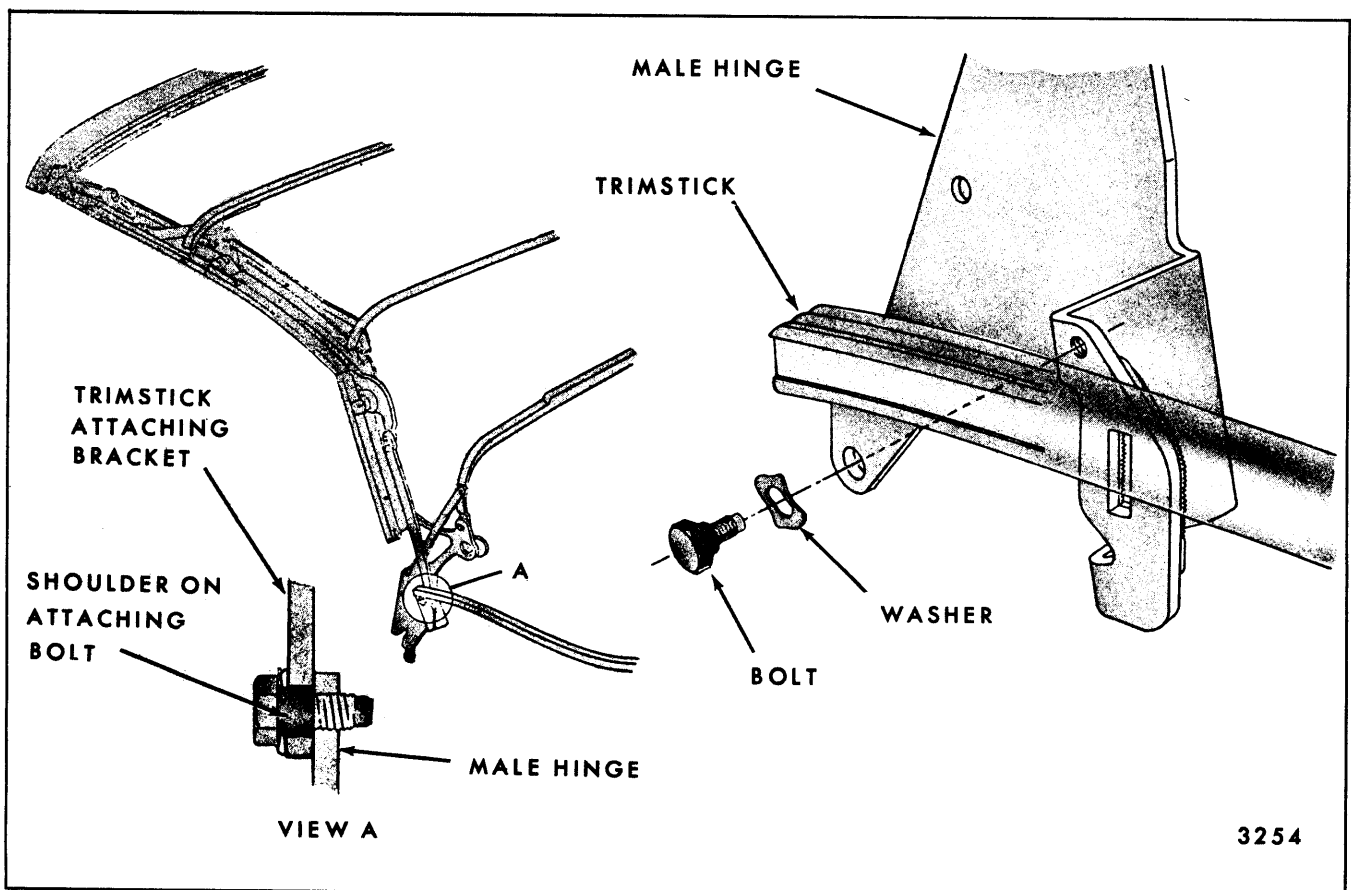


Fig. 13-43—Trimstick Attachment "A" Styles

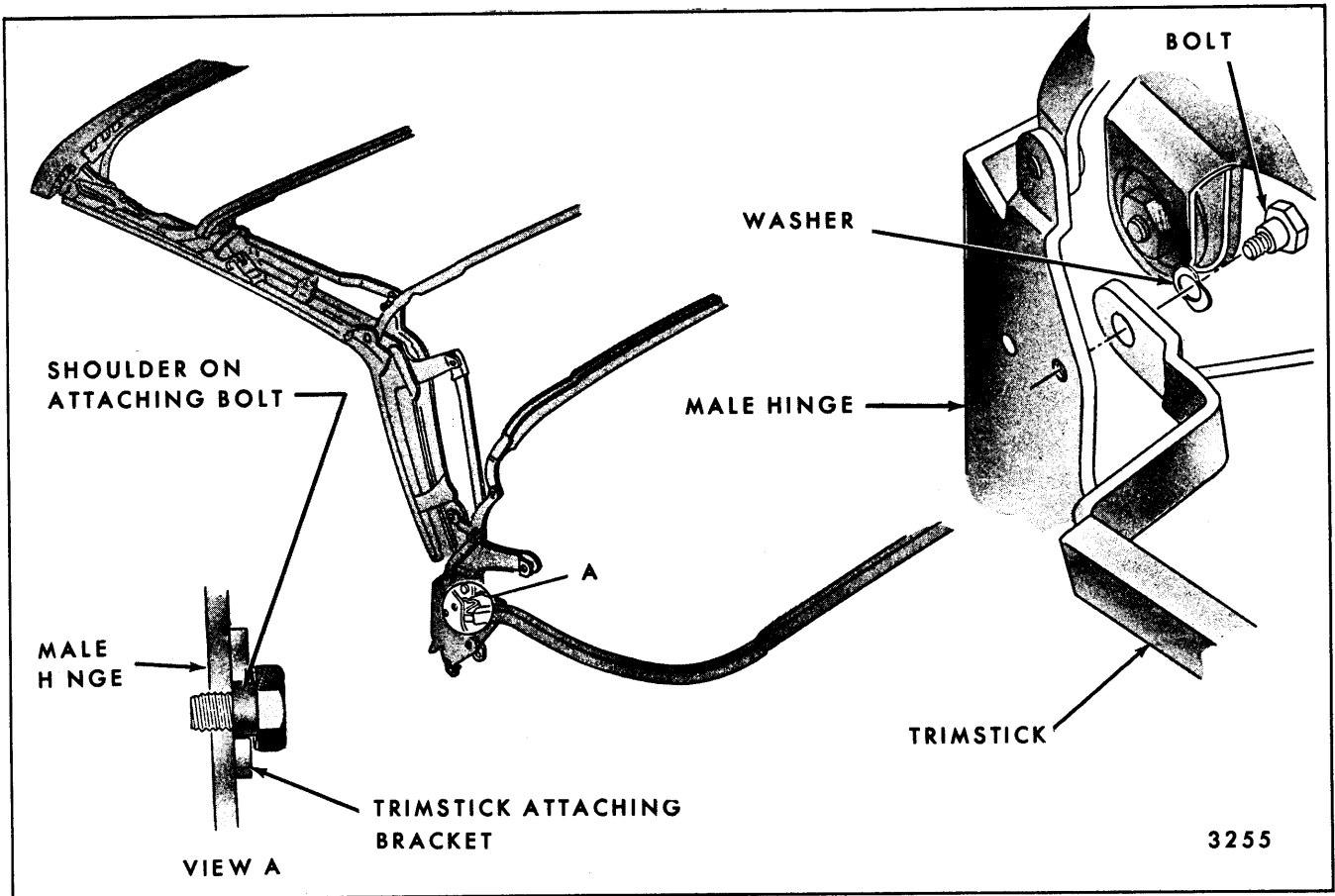


Fig. 13-45—Trimstick Attachment "B & C" Styles

On "A" styles, with top two to four inches off header, move one end of trimstick inward for clearance. Then pry it upward between hinge and body to clear rear roof rail (Fig. 13-48).

Raise removed end of trimstick upward and forward. Then continue by removing balance of trimstick above body belt line (Fig. 13-49 and 13-50).

On "B" and "C" styles, with top two to four inches off header, move both ends of trimstick down and forward after obtaining clearance at hinges.

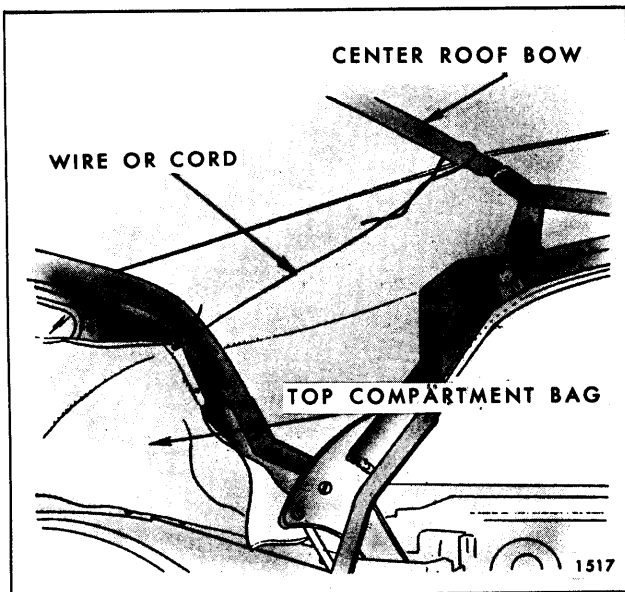


Fig. 13-46—Raising Folding Top Compartment Bag

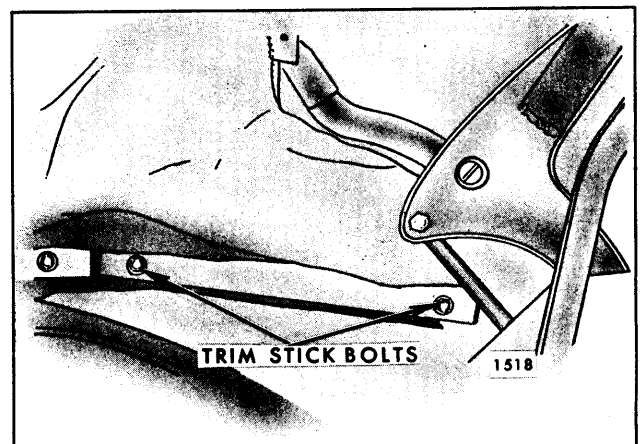


Fig. 13-47—Quarter Trimstick "F & Z" Styles

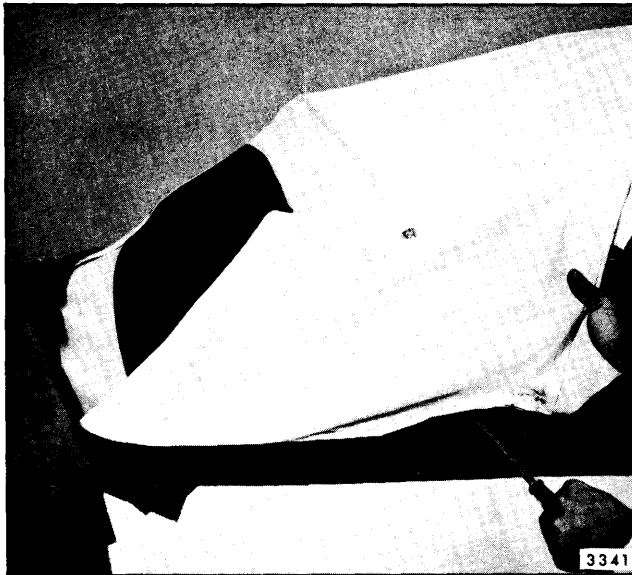


Fig. 13-48—Raising End of Trimstick "A" Styles

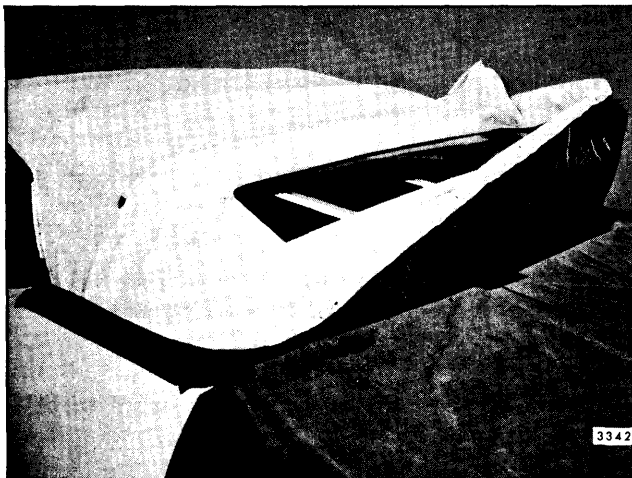


Fig. 13-49—Raising Balance of Trimstick "A" Styles

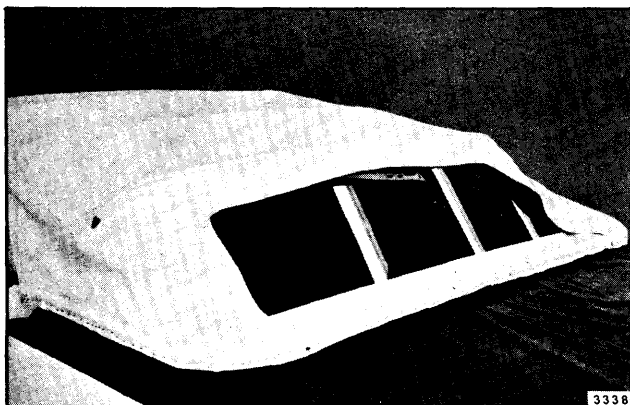


Fig. 13-50—Trimstick Removed "A" Styles

CAUTION: Avoid contact with or damage to top lift cylinder piston rod.

Then, move one side of trimstick inward for rear radius of trimstick to clear body radius. Raise one radius of trimstick from body; raise opposite radius of trimstick from body, (Fig. 13-51) then lift remainder of trimstick above body belt line.



Fig. 13-51—Removing Trimstick From Top Compartment "B & C" Styles

12. Using a sharp pencil, accurately mark location of complete rear trimstick(s) (upper and lower edges and ends) on outer surface of top cover and on back curtain. Re-check, and mark right and left inner vertical edge of top cover on back curtain at trim stick (Fig. 13-40). Make center mark on curtain at "V" notch on trimstick.
13. Detach top cover from rear trimstick(s) and raise cover for access to back curtain. Accurately mark location of balance of trimstick(s) on back curtain.
14. Detach back curtain from rear bow. With aid of a helper, remove rear trimstick(s) with attached back curtain and top compartment bag from body. Place on clean, protected surface. Note location and spacing of staples before removal.
15. Re-check accuracy of trimstick location markings on back curtain, and remove curtain from trimstick(s). Note location and spacing of staples before removal.

Installation

1. With front roof rail locked at windshield head er, and with rear bow spacer sticks firmly in place (Fig. 13-41), check side stay pads. If necessary, align and secure side stay pads. See Step 1 of "Folding Top Cover and Back Curtain Assembly Installation" (Fig. 13-52).

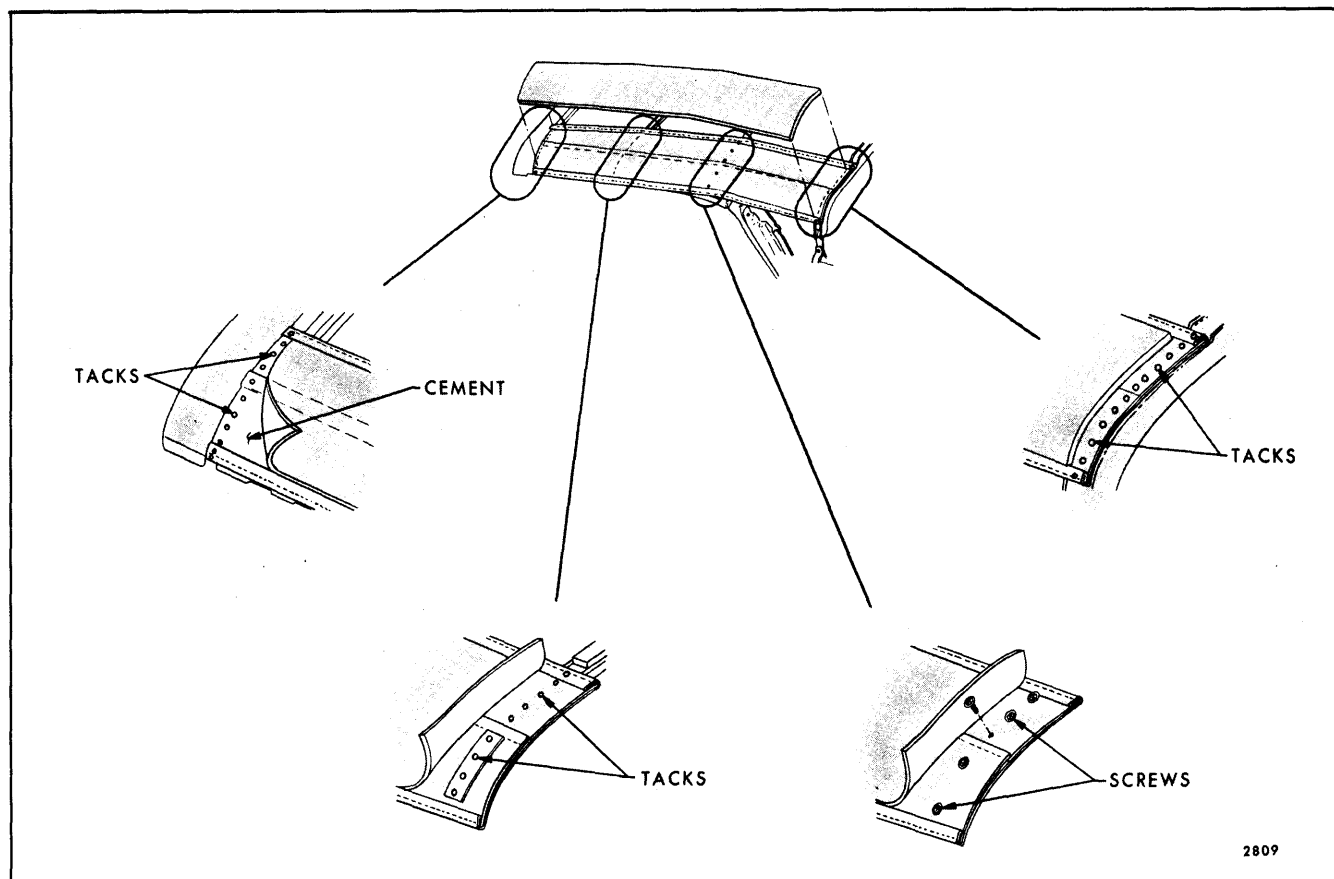


Fig. 13-52—Side Stay Pad Attachment

2. Transfer reference marks from removed back curtain to new one as follows: Place new back curtain on clean covered bench with inner surface down. Position removed back curtain correspondingly over new one. Carefully align upper window over lower one. While holding both curtains together securely, carefully lay out trim material of both curtains and transfer following reference marks along bottom: location of trimstick(s) (upper and lower trimstick edges, as well as ends); location of inner vertical edges of top cover; On "F" and "Z" styles, location of bolt holes. Allow 1/2 inch of back curtain material to extend below trimstick(s) (Fig. 13-53 and 13-54).

Then reverse back curtains by positioning new curtain over removed one, as described above. Re-check location of reference marks.

NOTE: If any difference is noted, the average between the two is the correct reference to use. Mark corrected references clearly.

Along bottom, trim off excess material beyond the 1/2 inch allowance. Transfer center mark from bottom center of removed curtain to new one.

IMPORTANT: Transfer of reference marks must be done in a highly exacting manner for best results and minimum rework.

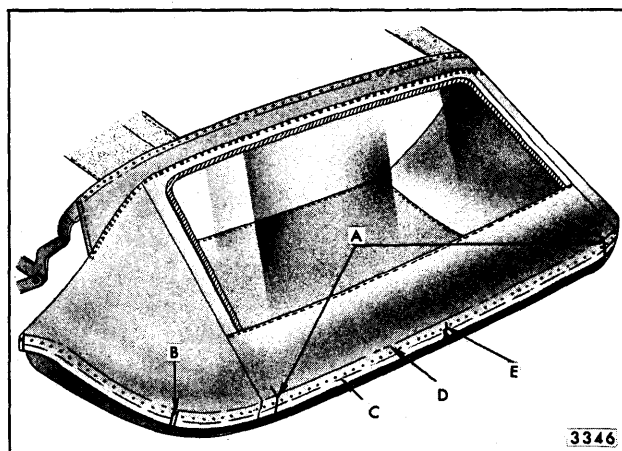


Fig. 13-53—Back Curtain Installation

- A. Top Cover Rear Vertical Edge References
- B. "F & Z" Quarter and Rear Trimstick Ends
- C. Trimstick Lower Edge Reference
- D. Trimstick Upper Edge Reference
- E. Back Curtain Center Reference

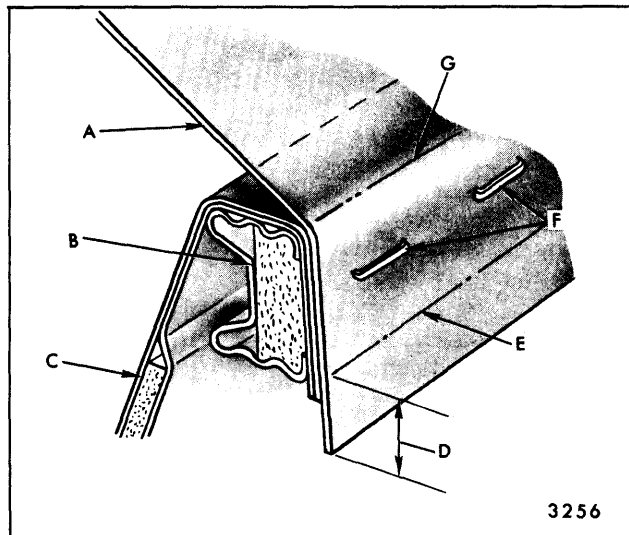


Fig. 13-54—Cross Section at Rear Trimstick - "A, B & C" Styles

- A. Back Curtain
- B. Rear Belt Rail Trimstick Assembly
- C. Folding Top Compartment Bag
- D. 1/2 inch over-hang
- E. Lower Edge Reference Mark
- F. Staples
- G. Upper Edge Reference Mark

3. As a bench operation, position and center new back curtain to trimstick(s) according to reference marks and tack curtain to trimstick(s). Tack from center to ends. Avoid stretching, but keep material flat during tacking operations.

On "F & Z" styles, place tacks close to each side of every bolt hole in trimsticks. Then cut out or punch holes for bolts in curtain.

4. On "F" and "Z" styles, inspect and, if necessary, install mastic type fillers around holes of folding top compartment rear panel for proper sealing of bolts (Fig. 13-55).
5. With aid of a helper, position rear trimstick(s), with attached bag and back curtain, on rear deck of body. Use care in protecting trim material and back window during this operation. Position bag in folding top well. Stay tack edge of back curtain to rear bow to protect back window during following operations.
6. Position rear trimstick(s) into body in reverse of removal operations. (See Step 10 & 11 of Back Curtain Removal, Fig. 13-49 or 13-51).
7. Secure rear trimstick(s) to body assembled position and tighten all attaching bolts (Fig. 13-43, 13-45 and 13-56).

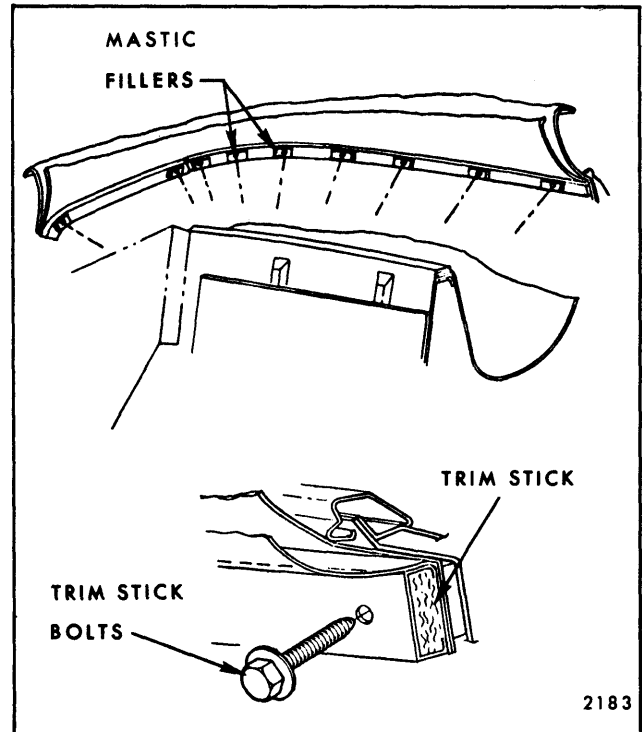


Fig. 13-55—Checking Trim Stick Fillers - "F and Z" Styles

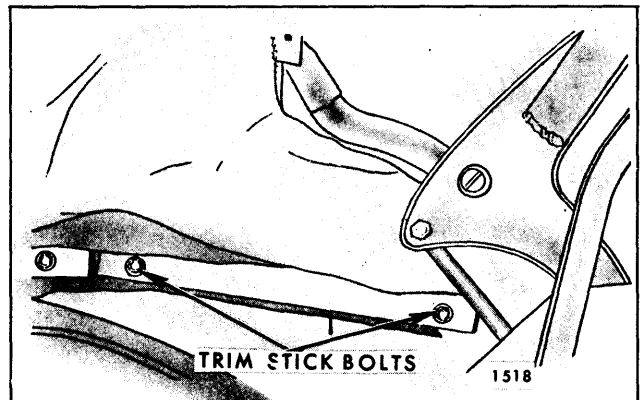


Fig. 13-56—Quarter Trimstick "F & Z" Styles

8. With front roof rail locked to windshield header and with spacer sticks firmly in place, tack back curtain to rear bow as follows:

Remove all stay tacks except two at outer ends supporting back curtain. Then pull curtain forward to remove all fullness and tack curtain to rear bow. Tack from center toward each end of curtain. Remove stay tacks. Apply forward tension to curtain at each point of tack installation (Fig. 13-37).

CAUTION: On "A", "B", and "C" styles, be sure one-piece trimstick is flush to quarter

pinchweld finishing molding during tacking operations. This will require assistance of a helper or a support. Trim excess back curtain material at rear bow. Also remove spacer sticks (Fig. 13-41).

9. Disconnect rear trimstick(s) as covered in Step 10 of "Removal of back Curtain" Procedure.
10. Remove rear trimstick(s) from body and position above quarter pinchweld finishing moldings as covered in Step 11 of "Removal of Back Curtain" Procedure.
11. Position and locate top cover to trimstick(s) according to reference marks and tack top cover to trimstick(s). Tack from top cover inner vertical edge reference on back curtain toward front. Avoid excessive stretching, but keep material flat during tacking operations (Fig. 13-40).

On "F" and "Z" styles, place tacks close to each side of every bolt hole in trimstick(s). Then cut out or punch holes for bolts in top cover.

12. Position rear trimstick(s) into body in reverse of removal operations as covered in Step 11 of "Removal of Back Curtain" Procedure.
13. With front roof rail several inches off windshield header, secure rear trimstick(s) to body assembled position and tighten all attaching bolts. This is the reverse of Step 10 of "Removal of Back Curtain" procedure.
14. Align and secure hold down cables at rear with attaching screw (Fig. 13-25).
15. Position front roof rail several inches off windshield header.

Apply nitrile cement or neoprene-type weath-

erstrip adhesive to cementing surfaces of side roof rear rails and to quarter flaps. Position and center top cover reference marks over rear bow. Align quarter flaps and seams with previously scribed marks and edges of side roof rear rails to remove all fullness from top cover. A forward draw on the cover outer sides will aid in this operation. With quarter flap seams aligned with each rear rail, cement quarter flaps securely in place.

NOTE: Top cover may require some lateral stretching along rear bow to achieve proper fit of quarter flaps to rear rails, and to remove fullness from top cover valance over rear window.

16. Using an awl or equivalent tool, pierce flaps for side roof rail rear weatherstrip attaching screws. Install weatherstrips to help maintain position of quarter flaps while adhesive is drying.
17. With front roof rail resting on windshield header, and with top cover reference marks aligned with rear bow, tack top cover securely to rear bow. Location and spacing of tacks should be similar to that of removed staples.
18. Using due caution, apply a bead of neoprene-type weatherstrip adhesive around each rear bow tack head, over unused staple holes, and over screw holes for escutcheons.
19. Install rear bow wire-on binding and escutcheons. Tack from center outwardly to maintain a snug and straight fit. Position of binding on top cover should match reference marks.
20. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware. Clean up top material and car as required.

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 support (Fig. 13-57). On the "B, C & F" Series the unit is installed in the body beneath the rear seat back panel (Fig. 13-58).

Figure 13-59 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.

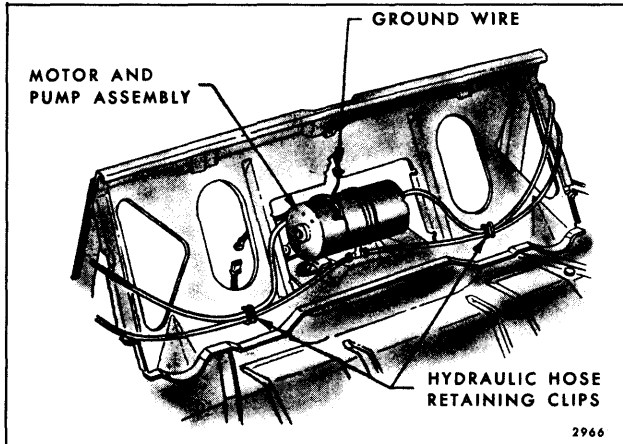


Fig. 13-57—Motor and Pump Installation "A" Styles Shown

- b. On "B, C & F" 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. Remove clips securing wire harness and hydraulic hose to rear seat back panel and support.
6. a. On "A" Body Styles disconnect motor leads from wire harness and ground attaching screws.
b. On "B, C & F" Body Styles at rear seat back panel, disconnect wiring harness and remove ground wire attaching screw.

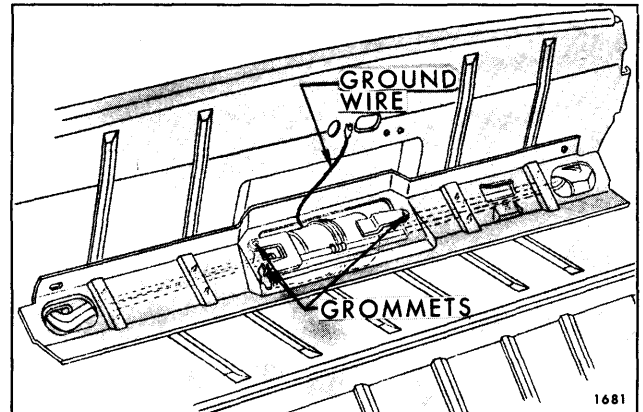


Fig. 13-58—Motor and Pump Installation "B, C & F" Styles

7. To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from floor pan on "B, C & F" and from rear seat back support on "A" Body Styles (Figs. 13-57 and 13-58).

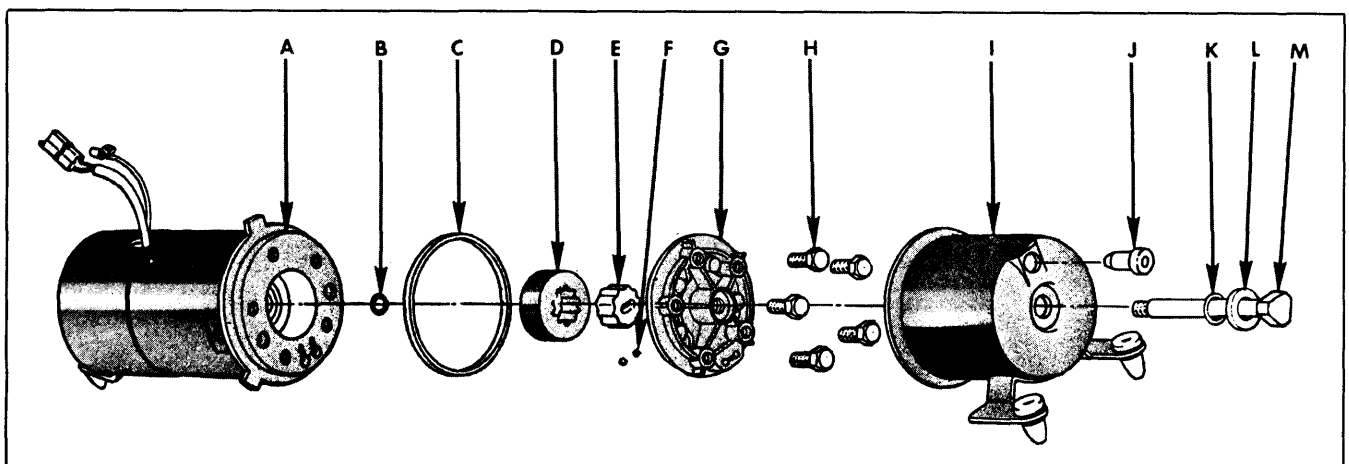


Fig. 13-59—Motor and Pump Components - All 67 Styles Except "Z" Body

- A. Motor Assembly
- B. Motor Shaft "O" Ring Seal
- C. Reservoir Seal
- D. Outer Pump Rotor
- E. Inner Pump Rotor

- F. Fluid Control Valve Balls
- G. Pump Cover Plate Assembly
- H. Pump Cover Attaching Screws
- I. Reservoir Tube and Bracket Assembly

- J. Reservoir Filler Plug
- K. Reservoir End Plate Attaching Bolt
- L. Reservoir End Plate Attaching Bolt Washer
- M. Reservoir End Plate Attaching Bolt

8. Place absorbent rags below hose connections and end of reservoir.
9. Vent reservoir by removing filler plug; then install plug.

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.

10. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid (Figs. 13-57 and 13-58). 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 Dexron or Type "A" transmission fluid. 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 Figure 13-60.
3. With a straight-bladed screwdriver, remove reservoir filler 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.

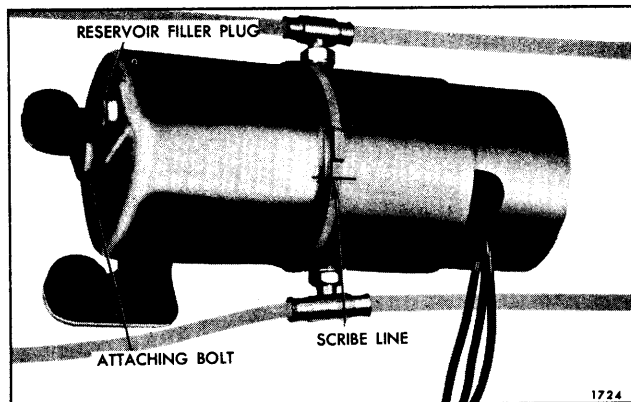


Fig. 13-60—Motor and Pump Assembly -
All 67 Styles Except "Z" Body

Assembly To Motor and Pump Assembly

1. Position sealing ring on pump and assemble 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.
3. Place unit in horizontal position and fill with fluid until fluid level is within 1/4" of lower edge of filler plug hole.

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:

1. **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 13-61. The action of the pump rotors forces the fluid under pressure to the bottom of each cylinder forcing the piston 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 rod displacement is drawn from the reservoir.
2. **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 13-62. 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.

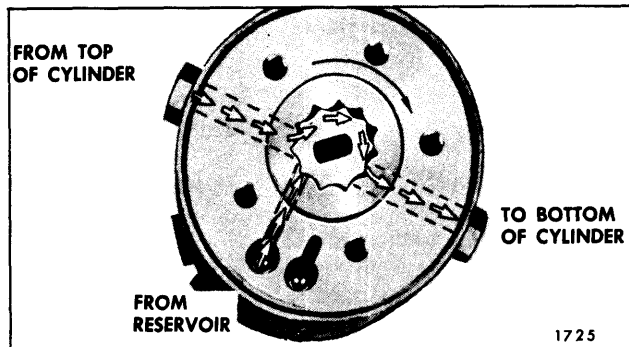


Fig. 13-61—Operation of Pump to Raise Top

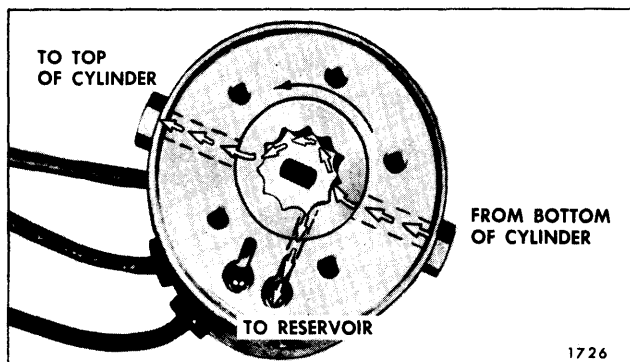


Fig. 13-62—Operation of Pump to Lower Top

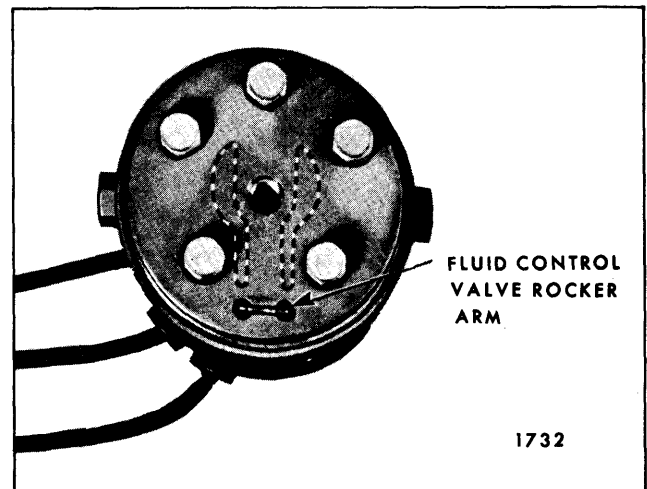


Fig. 13-63—Pump Cover Plate

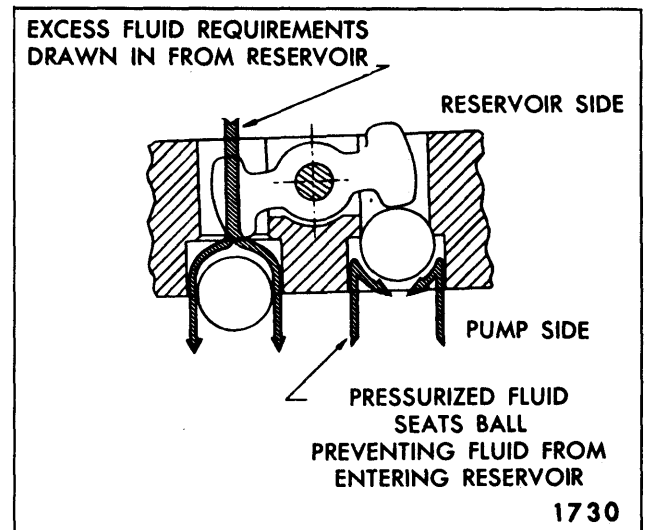


Fig. 13-64—Fluid Control Valve

FLUID CONTROL VALVE

The fluid control valve consists of a rocker arm installed in the pump cover plate, and two steel balls. Figure 13-63 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 pump rotors and the reservoir. Figures 13-64 and 13-65 illustrate 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, discon-

nect 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.

1. Check for Current at Folding Top Control Switch

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

2. Checking the Folding Top Control Switch

If there is current at the feed wire terminal of the terminal block, operation of switch can be checked as follows:

- Place a #12 jumper wire on switch terminal block between center terminal (feed) and one motor wire terminal. If motor operates with jumper wire, but did not operate with switch, switch is defective.
- Connect jumper wire between center terminal and other motor wire terminal on switch terminal block. If motor operates with jumper wire, but did not operate with switch, switch is defective.

3. Checking Switch to Motor Lead Wires.

If switch is found to be operating properly, the switch to motor lead wires can be checked as follows: See Figure 13-66.

- Disconnect green switch-to-motor wire from motor lead in rear compartment.
- Connect a light tester to green switch-to-motor wire terminal.

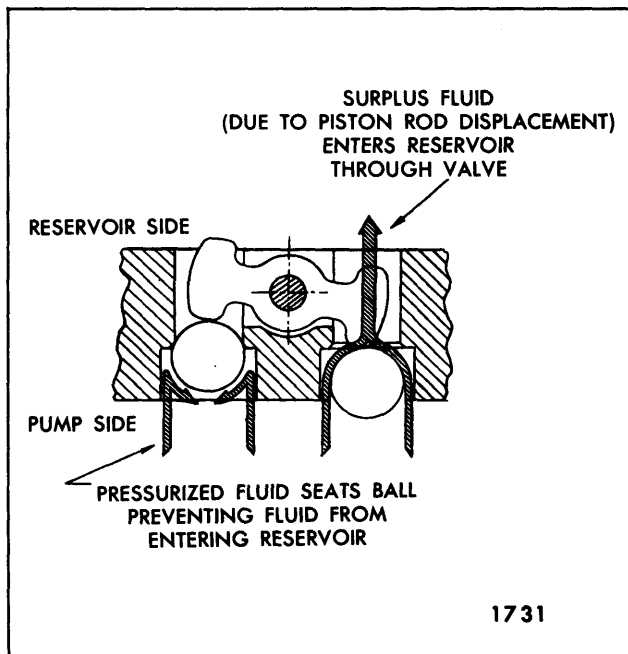


Fig. 13-65—Fluid Control Valve

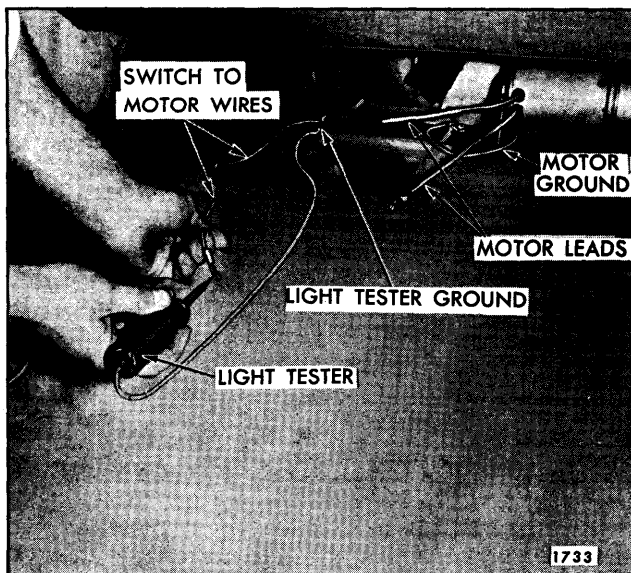


Fig. 13-66—Checking Wire Leads to Motor

- c. Ground light tester ground lead to body metal.
- d. Actuate switch to "down" position. If tester does not light, there is an open or short circuit in wire.
- e. Disconnect red switch-to-motor wire from motor lead.
- f. Connect light tester to red switch-to-motor wire terminal.
- g. Actuate switch to "up" position. If tester does not light, there is an open or short circuit in wire.

4. Checking the Motor Unit.

If a light tester indicates current at the motor lead terminals of the switch-to-motor wires, but motor unit does not operate from switch, a final check of the motor unit can be made as follows:

- a. Check connection of motor ground wire to body metal. (See Figs. 13-57 and 13-58.)
- b. Connect a #12 jumper wire from battery positive pole to motor lead terminal that connects to green switch-to-motor wire. The motor should operate to lower top.
- c. Connect jumper wire to motor lead terminal that connects to red switch-to-motor wire. The motor should operate to raise top.
- d. If motor fails to operate on either or both of these checks, it should be repaired or replaced.
- e. If motor operates with jumper wire but will not operate from switch-to-motor wires, the trouble may be caused by reduced current resulting from damaged wiring or poor connections.

HYDRAULIC CHECKING PROCEDURE

Failures in the hydraulic system can be caused by lack of hydraulic fluid, leaks in hydraulic system, obstructions or kinks in hydraulic hoses or faulty operation of a cylinder or pump.

1. Checking Hydraulic Fluid Level in Reservoir.

- a. Operate top to raised position.
- b. On all body styles perform the following operations:

- (1) Detach front edge of folding top compartment bag from rear seat back panel.
- (2) Remove clips securing hydraulic hose to rear seat back panel.
- (3) Disengage pump attaching grommets from compartment pan brace.
- c. Place absorbent rags below reservoir at filler plug.
- d. With a straight-bladed screwdriver, remove filler plug. Fluid level should be within 1/4 inch of lower edge of filler plug hole.
- e. If fluid is low, add Dexron or Type A transmission fluid to bring to specified level. See "Filling of Hydro-Lectric Reservoir".
- f. Install filler plug.
- g. Install motor and pump assembly and all previously removed parts.

2. Checking Operation of Lift Cylinders.

- a. On all styles remove rear seat cushion and back and folding top compartment side panel assemblies. On "F" Body Styles only, remove the body lock pillar to main hinge support extension brace.
- b. Operate folding top control switch and observe lift cylinders during "up" and "down" cycles for these conditions:
 - (1) If movement of cylinder is uncoordinated or sluggish when the motor is actuated, check hydraulic hoses from motor and pump to cylinder for kinks.
 - (2) If one cylinder rod moves slower than the other, cylinder having slower moving rod is defective and should be replaced.
 - (3) If both cylinder rods move slowly or do not move at all, check the pressure of the pump. See "Checking the Pressure of the Pump".

NOTE: To insure proper operation of the lift cylinders, the top lift cylinder rods should be cleaned and lubricated at least twice a year. To perform these operations, raise top to "up" position and wipe exposed portion of each top lift cylinder piston rod with a cloth dampened with Type A transmission fluid to remove any oxidation and/or accumulated grime.

CAUTION: Exercise care so that transmission fluid does not come in contact with any painted or trimmed parts of the body.

3. Checking Pressure at the Pump

- a. Remove motor and pump assembly from rear compartment.
- b. Install plug in one port, and pressure gauge in port to be checked (Figure 13-67).
- c. Actuate motor with applied terminal voltage within range of 9.5 volts to 11.0 volts. Pressure gauge should show a pressure between 340 psi and 380 psi.
- d. Check pressure in other port.

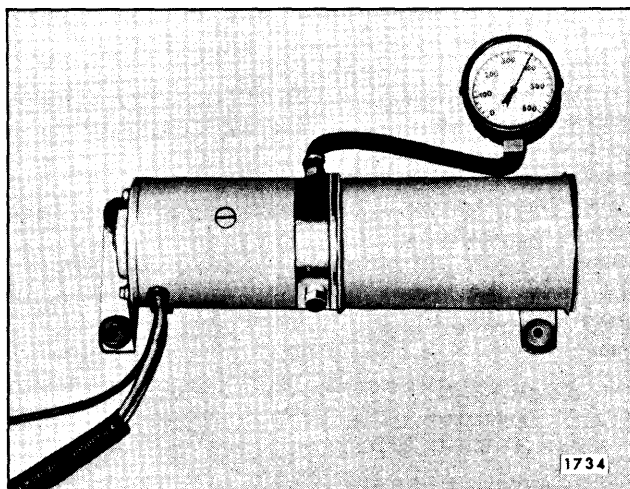


Fig. 13-67—Checking Pump Pressure

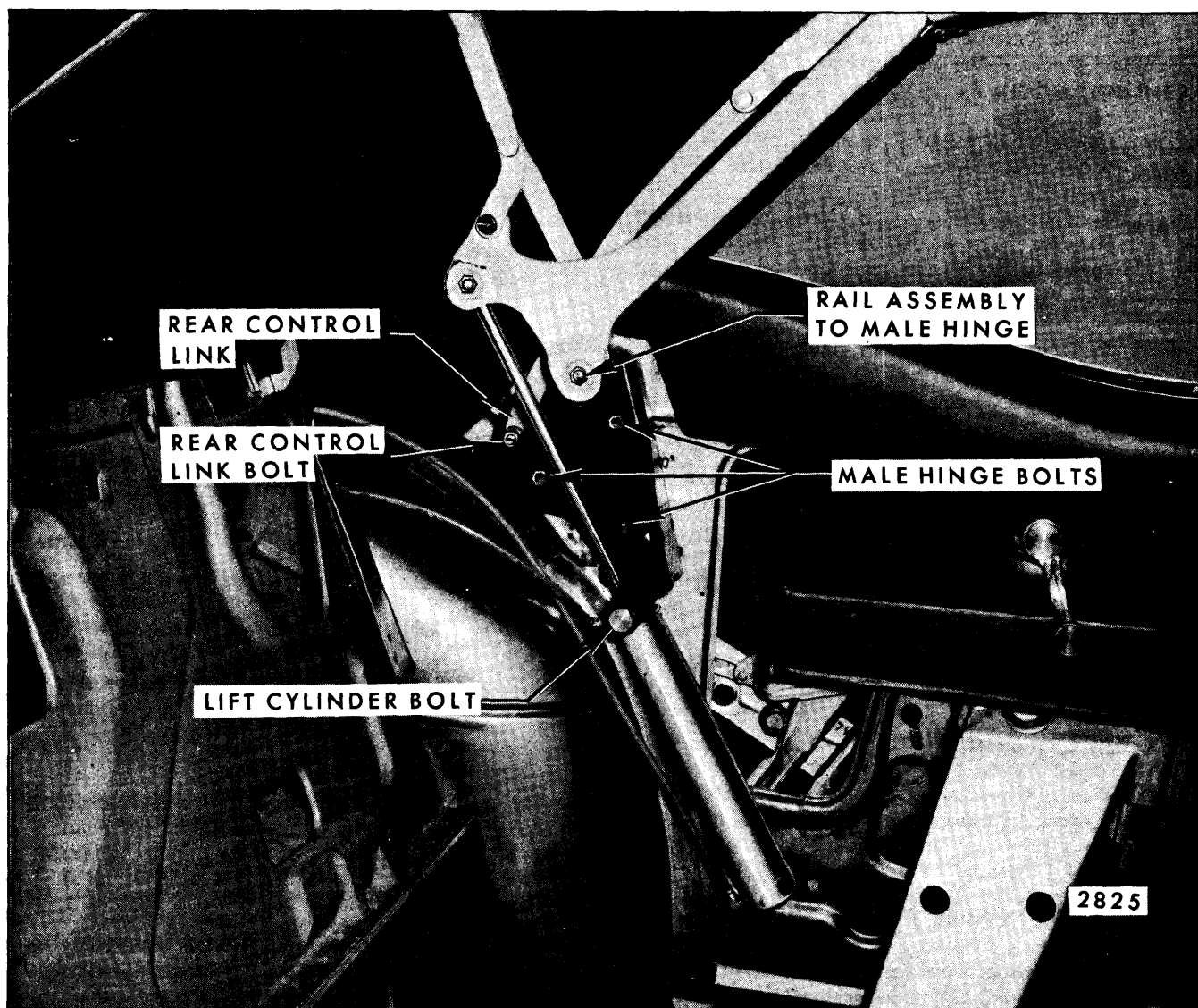


Fig. 13-68—Folding Top Linkage Attachment - "A" Styles Shown, "B & C" Typical

NOTE: A difference in pressure readings may exist between the pressure port for top of cylinders and pressure port for bottom of cylinders. This condition is acceptable if both readings are within the limit of 340 psi and 380 psi.

- e. If the pressure is not within specified limits, unit is defective and should be repaired or replaced, as required.

FOLDING TOP LIFT CYLINDER

Removal and Installation

1. Lock top to windshield header.
2. Disconnect positive battery cable to prevent accidental operation of motor and pump, particularly when hydraulic hoses are disconnected from cylinder.
3. Remove rear seat cushion and seat back.
4. Remove folding top compartment side trim panel assembly on side affected.
5. Remove clips securing hydraulic hose to rear seat back panel.
6. Remove attaching nut, bolt, bushing and washer from upper end of cylinder rod, Figures 13-68 and 13-69.
7. Remove inner and outer bolt securing cylinder to male hinge (Fig. 13-69).
8. Carefully move cylinder to inboard side of top compartment brace, exposing upper and lower hydraulic hose to cylinder connections.
9. Prior to disconnecting hydraulic connections, place suitable wiping rags under connections to absorb any drippage of hydraulic fluid.
10. Disconnect hydraulic connections from old cylinder and transfer to new cylinder assembly.
11. Install new cylinder to male hinge.
12. Connect positive battery cable to battery terminal.
13. Using power, raise cylinder piston rod to extended position.
14. Attach upper end of cylinder rod to folding top linkage using previously removed nut, bolt, bushing and washer.
15. Operate folding top assembly down and up sev-

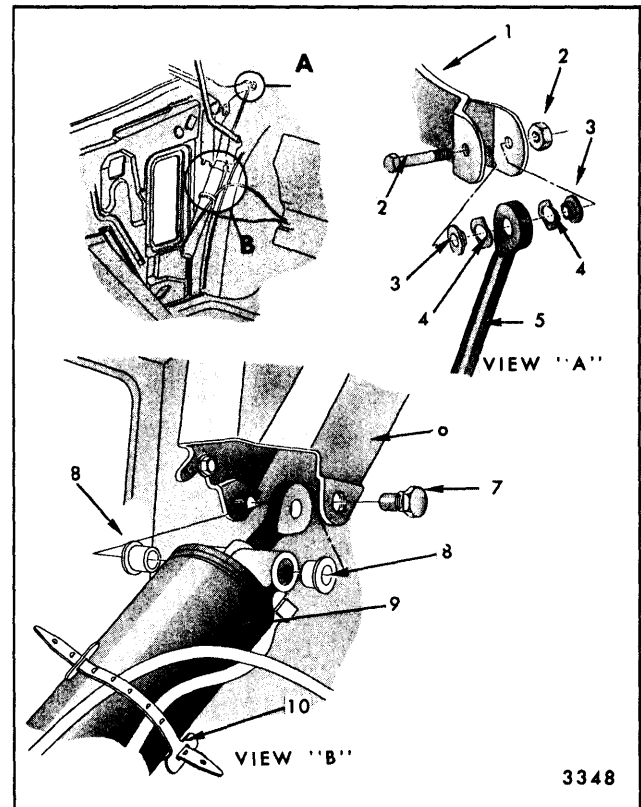


Fig. 13-69—Folding Top Lift Cylinder Attachment
"B & C" Shown, "A & F" Typical

- | | |
|--------------------------------------|-----------------------------|
| 1. Side Roof Rear Rail | 5. Piston rod |
| 2. Piston Rod Attaching Bolt and Nut | 6. Male Hinge |
| 3. Piston Rod Bushing | 7. Cylinder Attaching Bolt |
| 4. Piston Rod Anti-Rattle Washer | 8. Cylinder Bushing |
| | 9. Top Lift Cylinder |
| | 10. Hydraulic Hose Retainer |

eral times; then check and correct level of hydraulic fluid in reservoir. See "Filling of Hydro-Lectric Reservoir".

16. Install hydraulic hose to rear seat back panel with clips and install all previously removed trim and hardware.

FILLING OF HYDRO-LECTRIC RESERVOIR

This procedure virtually eliminates discharge or spillage of hydraulic fluid and possible trim damage while filling and bleeding system.

Fabrication of Rubber Filler Plug Adapter

1. Obtain a spare rubber filler plug (Part #7596442).
2. Cut approximately 1/2" off male end of plug (end inserted into reservoir) to permit insertion of tubing as shown in sketch.

3. Obtain a 2" length of metal tubing 7/32 O.D. x 5/32 I.D.
4. Insert reworked plug into filler hole in reservoir.
5. Insert metal tubing through hole in reworked filler plug.

NOTE: Figure 13-70 illustrates fabricated filler plug adapter.

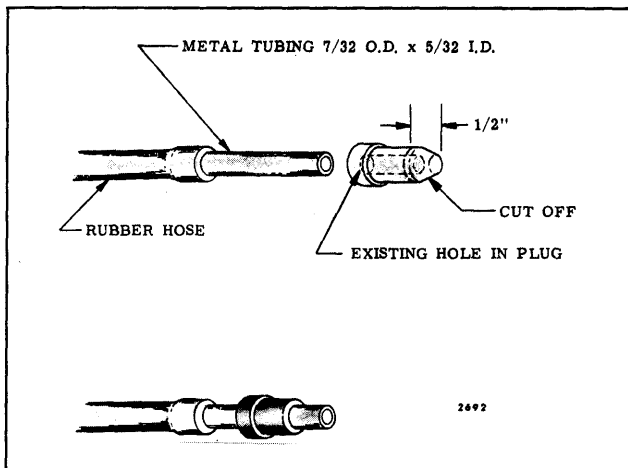


Fig. 13-70—Reservoir Filler Plug Adapter

Filling and Bleeding Reservoir

1. On all body styles, with top in raised position,

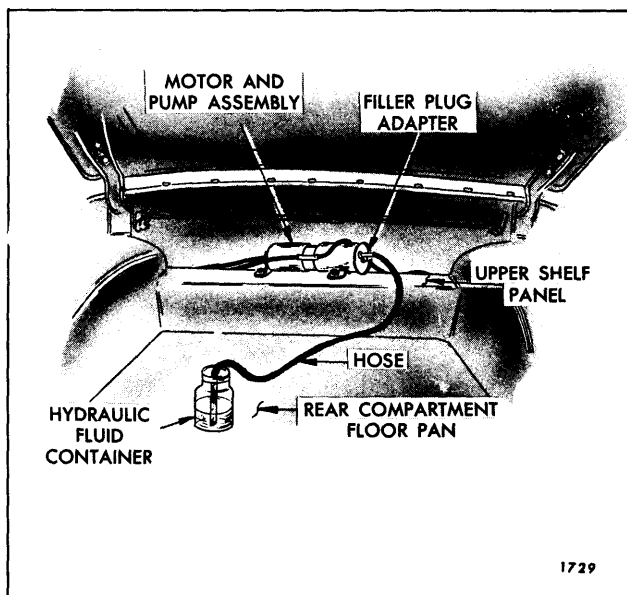


Fig. 13-71—Filling Reservoir with Hydraulic Fluid
All Styles Except "Z" Body

remove folding top compartment bag material from rear seat back panel.

2. On "B-C & F" body styles, remove rear seat cushion and back.
3. Place absorbent rags below reservoir at filler plug. Using pliers, slowly pull filler plug from reservoir.

IMPORTANT: When installing new or overhauled motor and pump assembly as a bench operation, fill reservoir with hydraulic fluid.

This priming operation is necessary prior to performing the following steps in order to avoid drawing excessive amount of air into hydraulic system.

4. Install filler plug adapter to reservoir and attach four or five foot length 5/32 inch I.D. rubber tubing or hose to filler plug tubing.
5. Install opposite end of hose into a container of Type "A" transmission fluid.

NOTE: Container should be placed in rear compartment area on "A" bodies and rear floor pan on "B-C & F" bodies, below level of fluid in the reservoir. In addition, sufficient fluid must be available in container to avoid drawing air into hydraulic system (Fig. 13-71).

6. Operate top to down or stacked position. After top is fully lowered continue to operate motor and pump assembly (approximately 15 to 20 seconds), or until noise level of pump is noticeably reduced. Reduction in pump noise level indicates that hydraulic system is filled with fluid.
7. Operate top up and down several times or until operation of top is consistently smooth in both up and down cycles and no further air bubbles are exhausted in container or fluid.
8. With top in down position, remove filler plug tubing and remove filler plug adapter from reservoir.
9. Check level of fluid in reservoir and re-install original filler hole plug.

NOTE: Fluid level should be within 1/4 inch of lower edge of filler plug with top in down position.

CAUTION: DO NOT OVER-FILL.

ACTUATOR ASSEMBLY—"Z" STYLES (EQUIPPED WITH ELECTRICALLY OPERATED FOLDING TOPS)

Removal

1. Remove rear seat cushion and back and folding top compartment side trim panel assembly on side affected.
2. Lock top to windshield header.
3. Fully raise all door and rear quarter windows.
4. Disconnect drive cable from actuator assembly.
5. Remove bolts securing side roof rear rail to sector gear (Fig. 13-72).
6. Mark location of control link adjusting plate on folding top compartment brace (Fig. 13-72).
9. Remove female hinge attaching bolts and remove actuator assembly from body.

Installation

1. Install female hinge attaching bolts to new actuator assembly, using washer scribe marks as guide (Fig. 13-72).
2. Install control link adjusting plate attaching bolts, using scribe mark of control link as guide (Fig. 13-72).

IMPORTANT: Be sure female hinge and control link attaching bolts are tight and top is locked to windshield header.

3. Manually move sector gear until all attaching bolts can be easily installed; then tighten sector gear attaching bolts (Fig. 13-72).

NOTE: New actuator assembly should now be "in phase" with opposite lift assembly.

4. Connect drive cable to actuator assembly.
5. Unlock top from windshield header.
6. Operate top to down or "stacked" position.

IMPORTANT: Care should be exercised when operating top during first test cycle to be sure that both actuators are synchronized or "in phase". Operation of top when actuators are "out of phase" may cause damage to side roof rails, actuators or convertible top material.

7. If electric lift units are "out of phase", proceed as follows:
 - a. Remove compartment bag material from rear seat back panel.
 - b. Disconnect both drive cables from motor assembly (Fig. 13-73).
 - c. Manually raise top above windshield header.
 - d. Lock top to windshield header.
 - e. Connect drive cables to motor.
 - f. Operate top through one or two complete cycles.

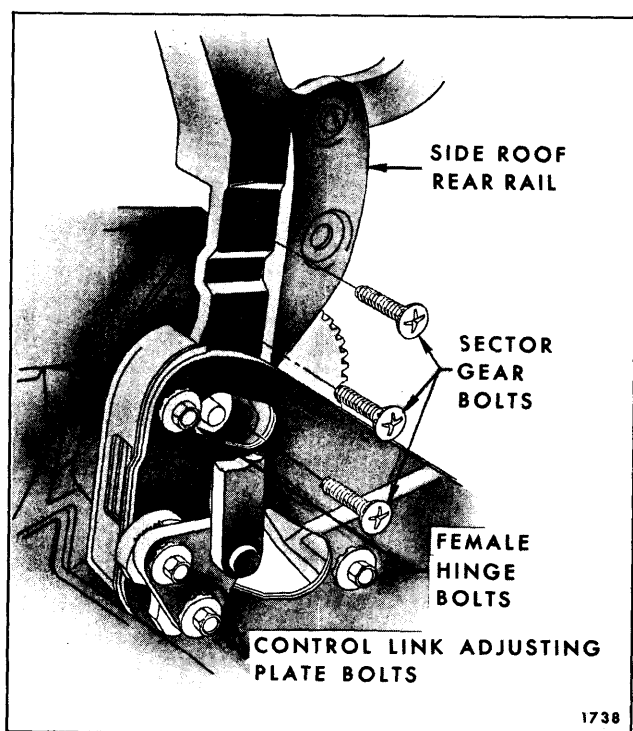


Fig. 13-72—Actuator and Top Control Link Attachment - "Z" Styles

7. Remove control link adjusting plate attaching bolts.
8. Mark location of female hinge attaching bolt washers on folding top compartment brace (Fig. 13-72).

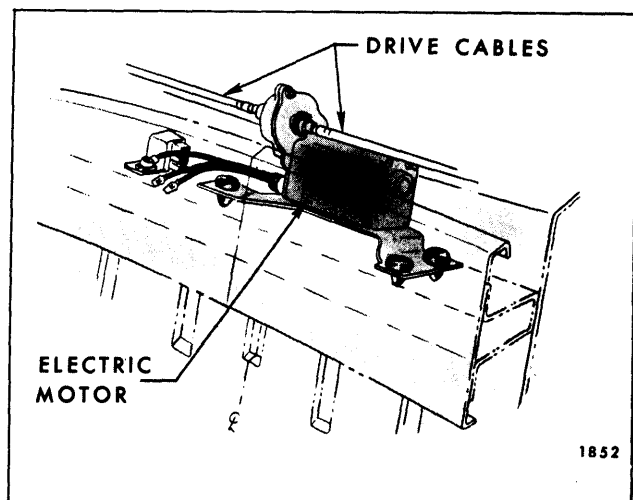


Fig. 13-73—Folding Top Electric Power Unit "Z" Styles

NOTE: The above procedure may be repeated on an "as required" basis if top does not appear to be "in phase" after test cycle.

g. Install compartment bag material to rear seat back panel.

8. Install folding top compartment side trim panel and rear seat back and cushion assembly.

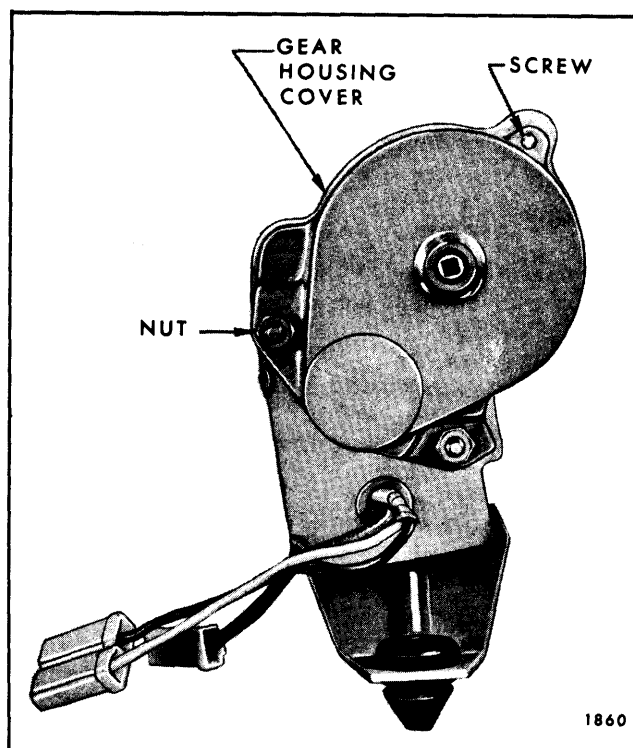


Fig. 13-74—Folding Top Lift Assembly

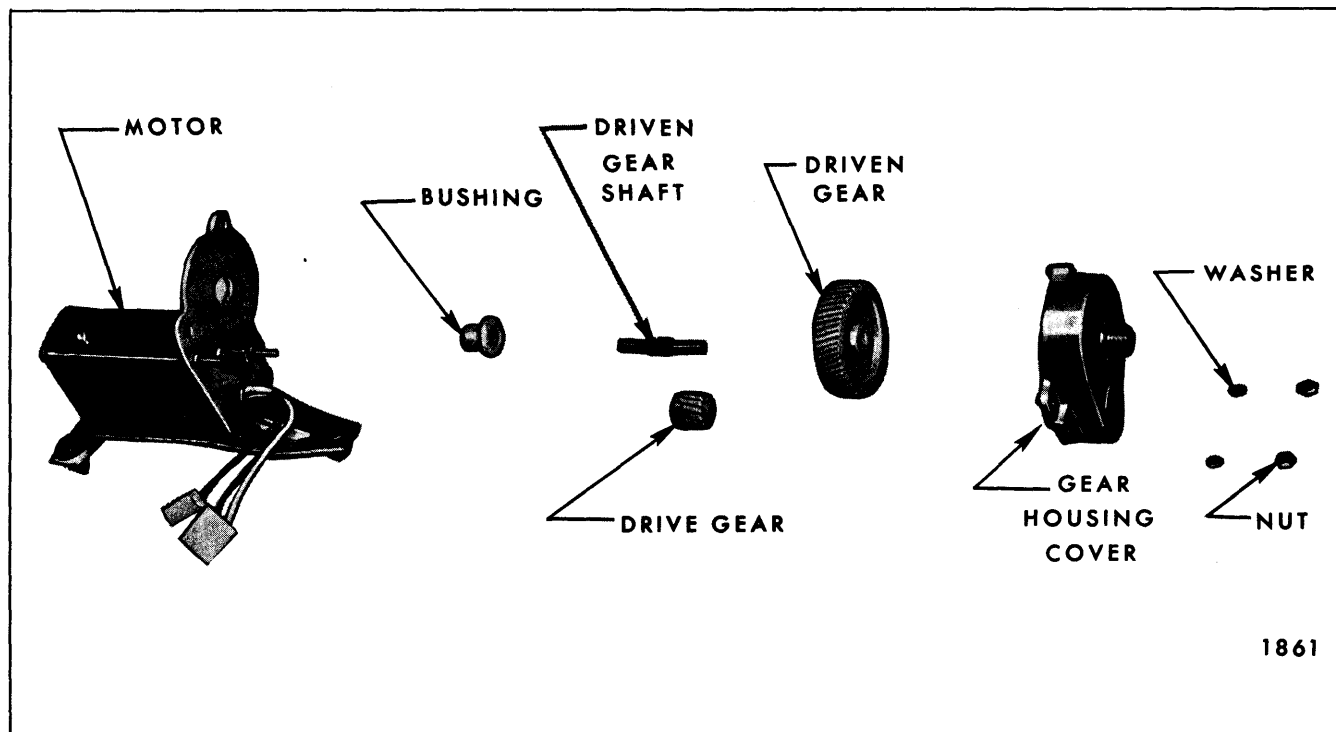


Fig. 13-75—Folding Top Lift Disassembled

INOPERATIVE FOLDING TOP IN DOWN ("STACKED") POSITION

1. Working over rear seat back, detach top compartment bag material from rear seat back panel.
2. Disconnect both drive cables from motor assembly (Fig. 13-73).
3. With aid of helper, manually raise folding top assembly and lock to windshield header.
4. To replace an actuator assembly see "Folding Top Actuator Assembly" removal and installation procedure.

TOP LIFT ASSEMBLY

Disassembly and Assembly

1. Working over rear seat back, detach top compartment bag material from rear seat back panel.
2. Disconnect both drive cables from motor assembly.
3. Remove nuts, washers and screw securing gear housing cover to motor assembly (Fig. 13-74).
4. Disassemble folding top lift assembly as shown in Figure 13-75.
5. To assemble, reverse disassembly procedure.

FOLDING TOP MANUAL LIFT ASSEMBLY "A, F & Z" STYLES

Description

The manual lift assembly incorporates a dual-action heavy duty spring which helps compensate for the weight of the folding top mechanism when the top is at or near the full up or full folded positions. When the top is in the up position, the spring is under compression; when it is in the folded or stacked position, the spring is under tension.

CAUTION: Do not attempt to detach lift assembly when spring is under tension or compression.

Removal and Installation

1. On all styles remove rear seat cushion and back and folding top compartment side trim panel assembly on side affected. On "F" Body Styles only, remove the body lock pillar to main hinge support extension brace.
2. Move top to midway position to relieve the manual lift springs. If both lift assemblies are to be serviced, have helper support folding top or place supporting props under front roof rail.
3. Remove attaching nut, bolt, bushing and washer from upper end of lift assembly.
4. On "F & Z" bodies, remove inner and outer bolt securing lift assembly to male hinge; then remove assembly from body. On "A" bodies, remove inner bolt and slightly move lift assembly inboard and remove. (Fig. 13-76 for "A" body, Fig. 13-77 for "F" body, and Fig. 13-78 for "Z" body.)

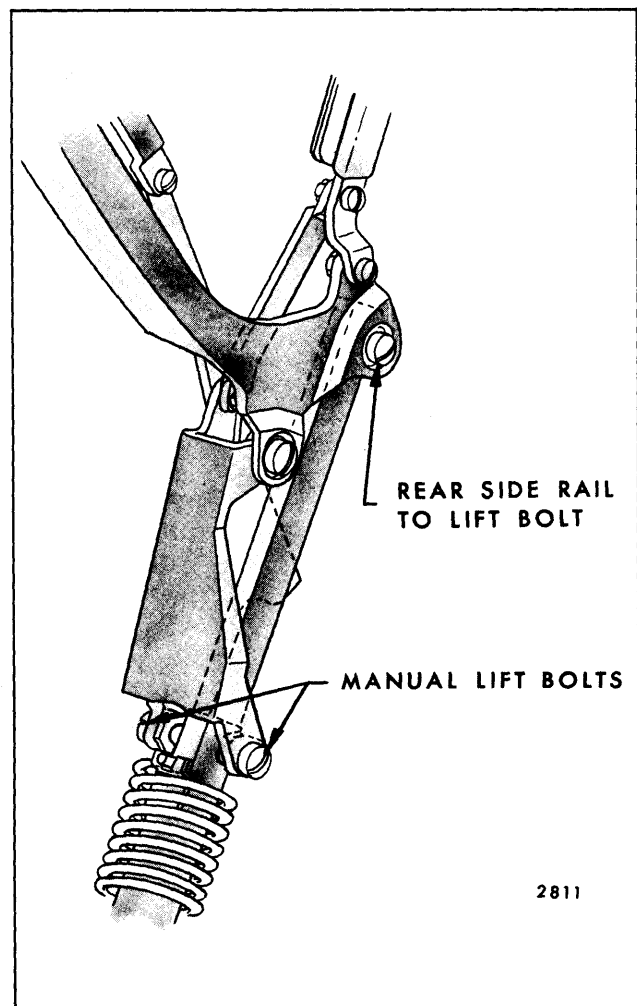


Fig. 13-76—Folding Top Manual Lift Attachment - "A" Styles

5. To install manual lift assembly, reverse removal procedure. Operate folding top assembly down and up several times to insure proper operation.

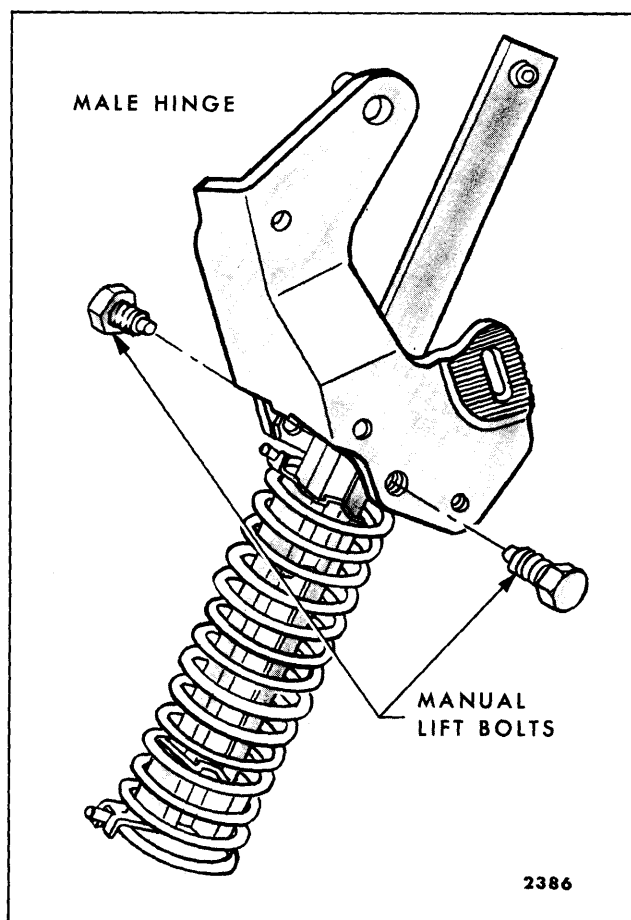


Fig. 13-77—Folding Top Manual
Lift Attachment - "F" Styles

FOLDING TOP CATCH CLIPS

The folding top catch clips snap over the folding top side roof center rails when the top is being lowered to the folded or stacked position. The catch clips

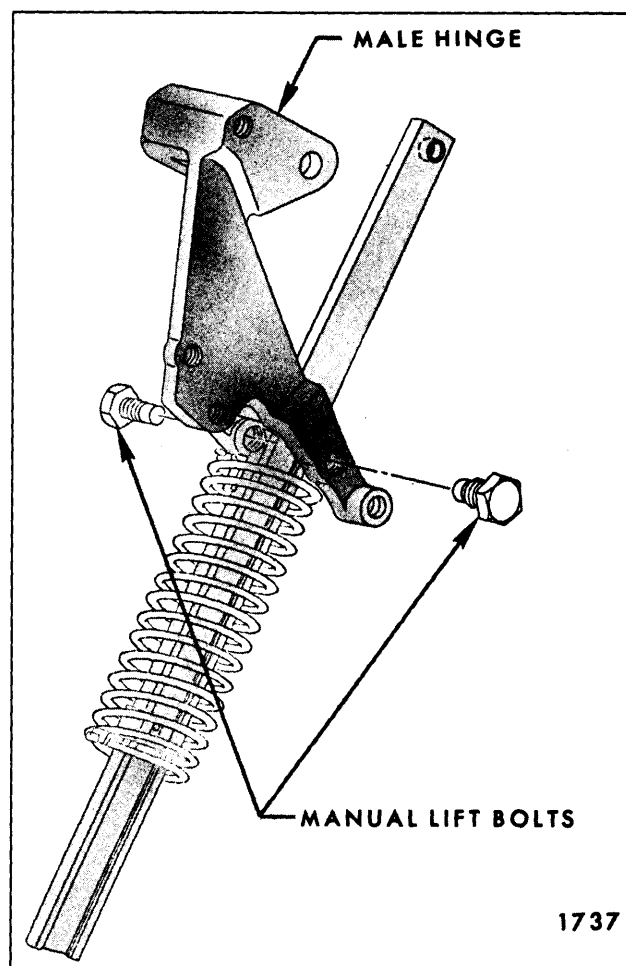


Fig. 13-78—Folding Top Manual
Lift Attachment - "Z" Styles

prevent the spring-loaded manual lift arms from raising the top from this position. In order to raise the top, both catch clips must be disengaged from the side roof center rails. Each catch clip is attached to the folding top compartment side panels by two screws. Any adjustments made to change stack height of the folding top (See "Folding Top Adjustments") require corresponding adjustments to the catch clips.

FOLDING TOP ADJUSTMENTS "A, B & C" STYLES

Description

The folding top linkage consists of three sections of side roof rails, a front roof rail, hinges, connect-

ing links and bows. The top linkage is attached to the body at the rear quarter area by a stationary, side-mounted male hinge. The front roof rail locks at the windshield header by hook type locks which are integral with the locking handles.

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustments of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, or side roof rail weatherstrips.

ADJUSTMENT OF FRONT ROOF RAIL GUIDE

If the front roof rail guide does not properly engage with the striker when the top is raised, the guide may be adjusted laterally as follows:

1. Unlatch top and raise it above windshield header.
2. Loosen guide and adjust to desired position; then tighten guide (Fig. 13-79).

NOTE: The sunshade support and striker assembly is not adjustable. If additional fore and aft adjustment is required, it must be obtained by adjusting the front roof rail.

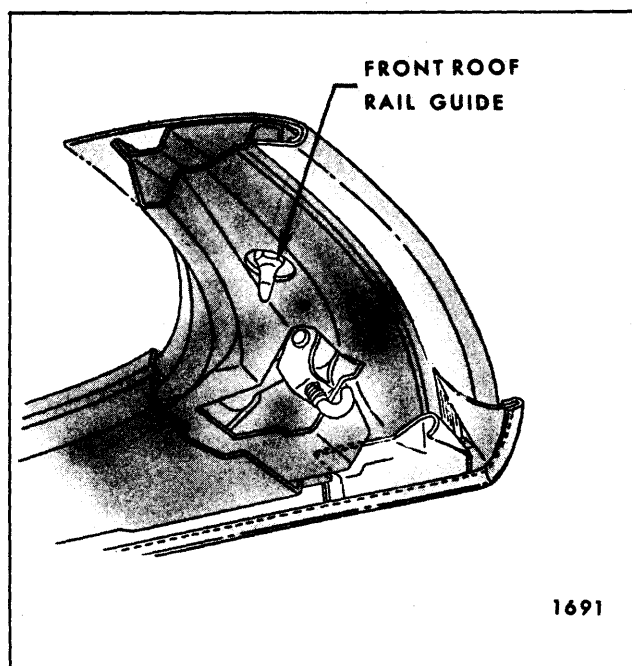


Fig. 13-79—Front Roof Rail Guide and Lock Hook
"A, B, & C" Styles

ADJUSTMENT OF FRONT ROOF RAIL

If the top, when raised, is too far forward or does not move forward enough to allow the guide pin to enter the striker, proceed as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.
2. Loosen side roof rail lock attaching screws and adjust front roof rail fore or aft as required (Fig. 13-80).
3. Tighten lock attaching screws and install weatherstrip screws.

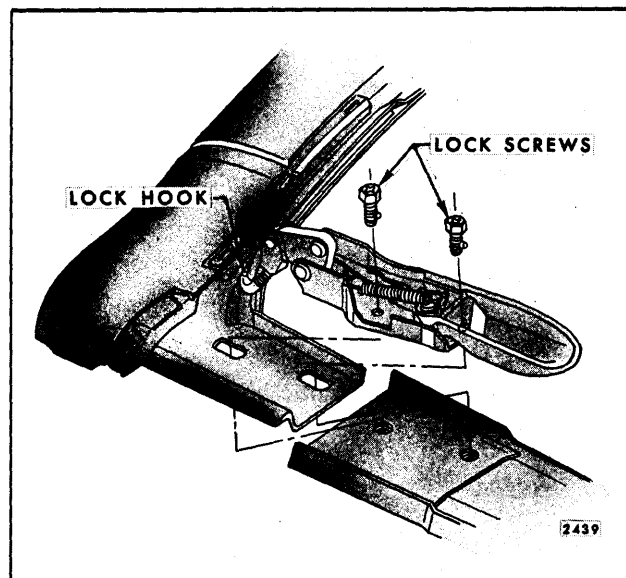


Fig. 13-80—Front Roof Rail and Lock Attachment
"B & C" Styles Shown, "A" Styles Typical

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Lower top to half-lowered position, remove lock attaching screws; and remove lock assembly from front roof rail (Fig. 13-80).
2. To install, reverse removal procedure and adjust front roof rail as required.

FRONT ROOF RAIL LOCK ADJUSTMENT

If locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as follows:

1. To tighten or increase locking action, turn lock hook clockwise.
2. To reduce or decrease locking action, turn lock hook counterclockwise (Fig. 13-80).

ADJUSTMENT OF TOP CONTROL LINK

If side roof rails are too high or too low over side

windows, proceed as follows:

IMPORTANT: When making top control link adjustments, be sure side roof rail hinge adjusting screw (Fig. 13-82 View "B") is backed off.

1. Operate top to half-lowered position.
2. Loosen bolt securing control link sufficiently to permit adjustment (Fig. 13-81).
3. Adjust top control link as required and tighten bolt.
4. Raise and lock top. Check alignment.

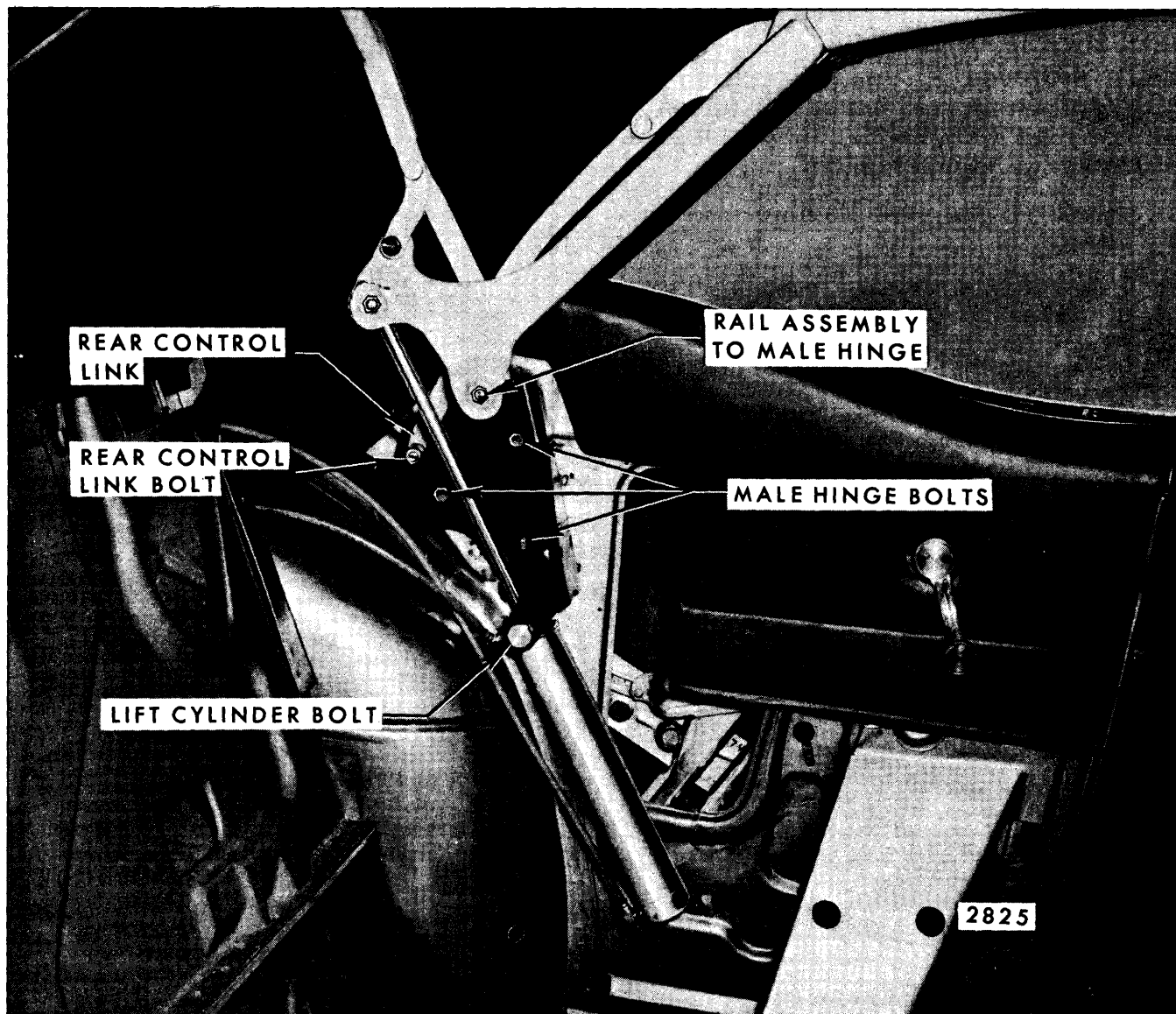


Fig. 13-81—Folding Top Linkage Attachment - "A" Styles Shown, "B & C" Typical

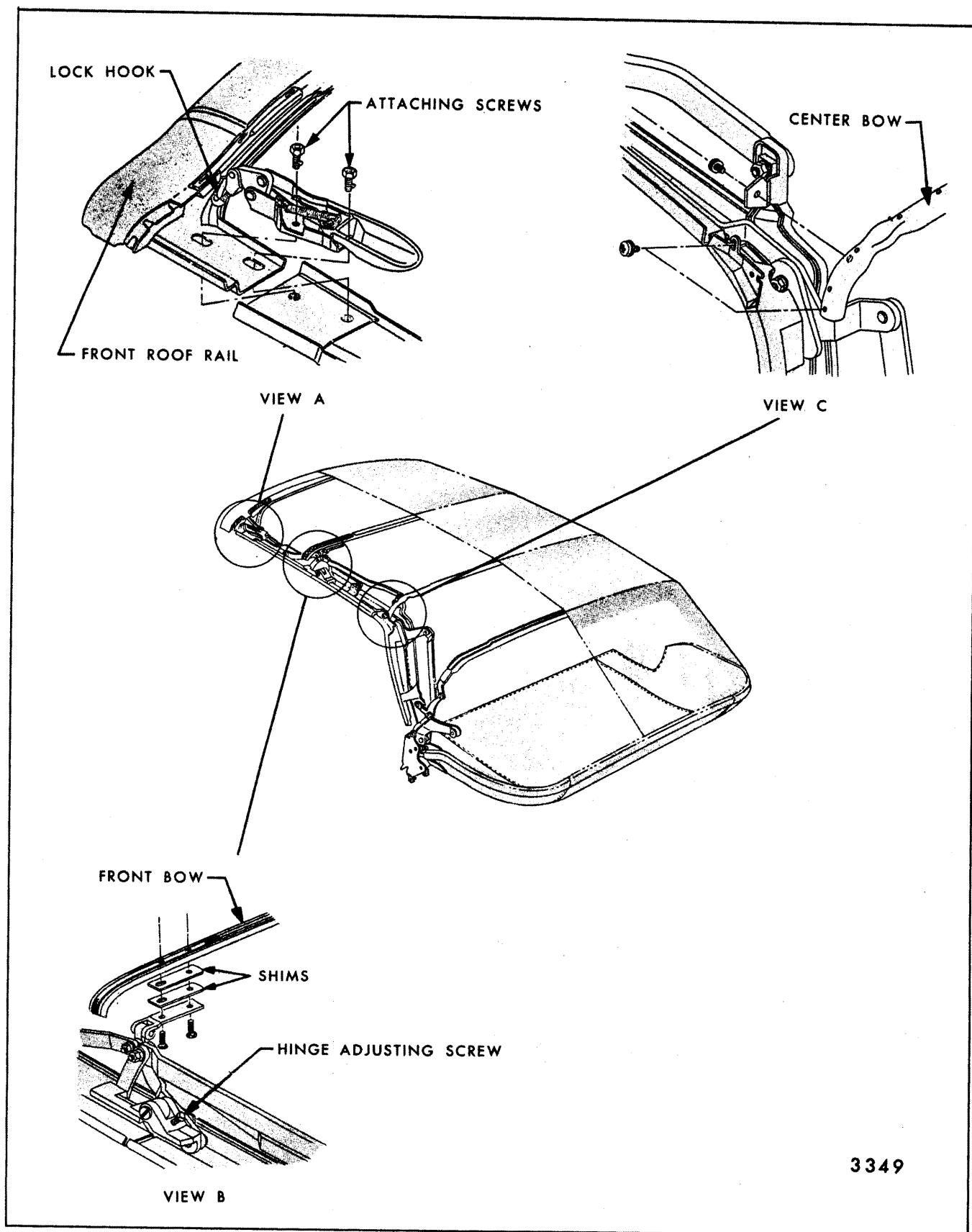


Fig. 13-82—Folding Top Adjustments - "B & C" Styles Shown. "A" Styles Similar

TROUBLE SHOOTING CHART "A, B & C" STYLES

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front.	<ol style="list-style-type: none"> 1. Lock hook too short. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned. 	<p>Adjust lock hook counterclockwise.</p> <p>Loosen, realign and retack front roof rail front weatherstrip.</p> <p>Adjust front roof rail.</p>
B. Top does not lock tight enough to windshield header.	<ol style="list-style-type: none"> 1. Lock hook too long. 2. Misaligned front roof rail weatherstrips. 3. Front roof rail misaligned. 	<p>Adjust lock hook clockwise.</p> <p>Loosen and realign front roof rail weatherstrips.</p> <p>Adjust front roof rail.</p>
C. Top travels too far forward.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 	Adjust front roof rail rearward.
D. Top does not travel forward far enough.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 	Adjust front roof rail forward.
E. Side roof rails low.	<ol style="list-style-type: none"> 1. Center side roof rail hinge adjusting screw protrudes. 2. Control link misaligned. 	<p>Back off adjusting screw (View "B" Fig. 13-82).</p> <p>Adjust control link downward.</p>
F. Side roof rails high.	<ol style="list-style-type: none"> 1. Control link misaligned. 	Adjust control link upward.
G. Folding top dust boot is difficult to install ("A" Style).	<ol style="list-style-type: none"> 1. On manual tops, due to improperly adjusted catch clips. 	Adjust catch clips downward as required.
H. Folding Top dust boot fits too loosely ("A" Style).	<ol style="list-style-type: none"> 1. On manual tops, due to improperly adjusted catch clips. 	Adjust catch clips upward as required.
I. Top material is too low over windows or side roof rails.	<ol style="list-style-type: none"> 1. Front roof bow insufficiently shimmed. 2. Excessive width in top material. 	<p>*Install one or two 1/8" shims between front roof bow and slat iron (See View "B" in Fig. 13-82).</p> <p>If top is too large, detach binding along affected area; trim off excessive material along side binding as required; then hand sew binding to top material.</p>
J. Top material is too high over windows or side roof rails.	<ol style="list-style-type: none"> 1. Front roof bow shimmed too high. 	*Remove one or two 1/8" shims between front roof bow and slat iron (See View "B" in Fig. 13-82).

TROUBLE SHOOTING CHART "A, B & C" STYLES (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
K. Top material has wrinkles or draws.	1. Top material improperly installed.	Reposition and retack top material as required.
L. Top material binds at side quarters.	1. Insufficient clearance.	Install shim of necessary thickness between hinge and body.
M. One side staggers upon raising top from folding top compartment ("A" Style).	1. Bind condition in folding top linkage.	With top lowered, remove trim on affected side. Loosen male hinge attaching bolts. Do not loosen top control link. Raise top 3 to 4 feet. Tighten bolts and recheck operation of top. Reinstall trim.

*When no shims are required or when installing only one shim, use attaching screw part #4412844 (1/4 - 20 x 5/8" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

When two shims are required, use attaching screw part #4412619 (1/4 - 20 x 3/4" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

FOLDING TOP ADJUSTMENTS "F" BODY

DESCRIPTION

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarters glass, trim sticks or side roof rail weatherstrips.

CAUTION: When operating a manually-operated folding top, hands must be kept clear of side roof rail hinges and connecting linkage.

ADJUSTMENT OF FRONT ROOF RAIL

If the top, when in a raised position, is too far forward or too far rearward, the front roof rail may be adjusted as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.
2. Loosen lock attaching screws on side roof front

rail and adjust front roof rail fore or aft as required (See View "A", Fig. 13-84).

3. Tighten lock assembly and install weatherstrip attaching screws.

NOTE: If additional adjustment is required, it can be made at folding top male hinge.

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.
2. With top in a half-lowered position, remove lock attaching screws; then remove lock assembly from front roof rail (See View "A", Fig. 13-84).
3. To install, reverse removal procedure and align front roof rail as required.

FRONT ROOF RAIL LOCK ADJUSTMENT

If the locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as

follows:

1. To tighten or increase locking action, turn lock hook clockwise.
2. To reduce or decrease locking action, turn lock hook counterclockwise.

ADJUSTMENT OF TOP CONTROL LINK

1. With top in locked position, if side roof rail is too high or too low, proceed as follows:
 - a. Remove folding top compartment side trim panel.
 - b. Loosen bolt securing control link sufficiently to permit adjustment (See Fig. 13-83).
 - c. Adjust link to desired position; then tighten bolt.
 - d. Reinstall folding top compartment side trim panel.

ADJUSTMENT OF TOP AT MALE HINGE

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing rear quarter trim stick to body. This will prevent any possible damage to top cover when it is raised after adjustment. After making an adjustment at male hinge, check top cover at rear quarter area for proper fit and, if necessary adjust trim stick assembly.

1. If there is an excessive opening between side

roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:

- a. Scribe location of male hinge attaching bolt washers on folding top compartment brace.
 - b. Loosen male hinge bolts (Fig. 13-83).
 - c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window, then tighten bolts.
 - d. Lock front roof rail to windshield header and check fit of top material at rear quarter trim stick; then tighten trim stick attaching bolts.
 - e. On styles equipped with manually operated folding tops adjust both folding top catch clips as required (See "Folding Top Manual Lift Section").
2. If side roof rail is too high or too low at rear quarter window area, proceed as follows:
 - a. Scribe location of male hinge attaching bolt washers and control link on folding top compartment brace.
 - b. Loosen male hinge bolts (See Fig. 13-83).
 - c. Without changing fore and aft location of male hinge, adjust male hinge up or down as required to obtain proper alignment be-

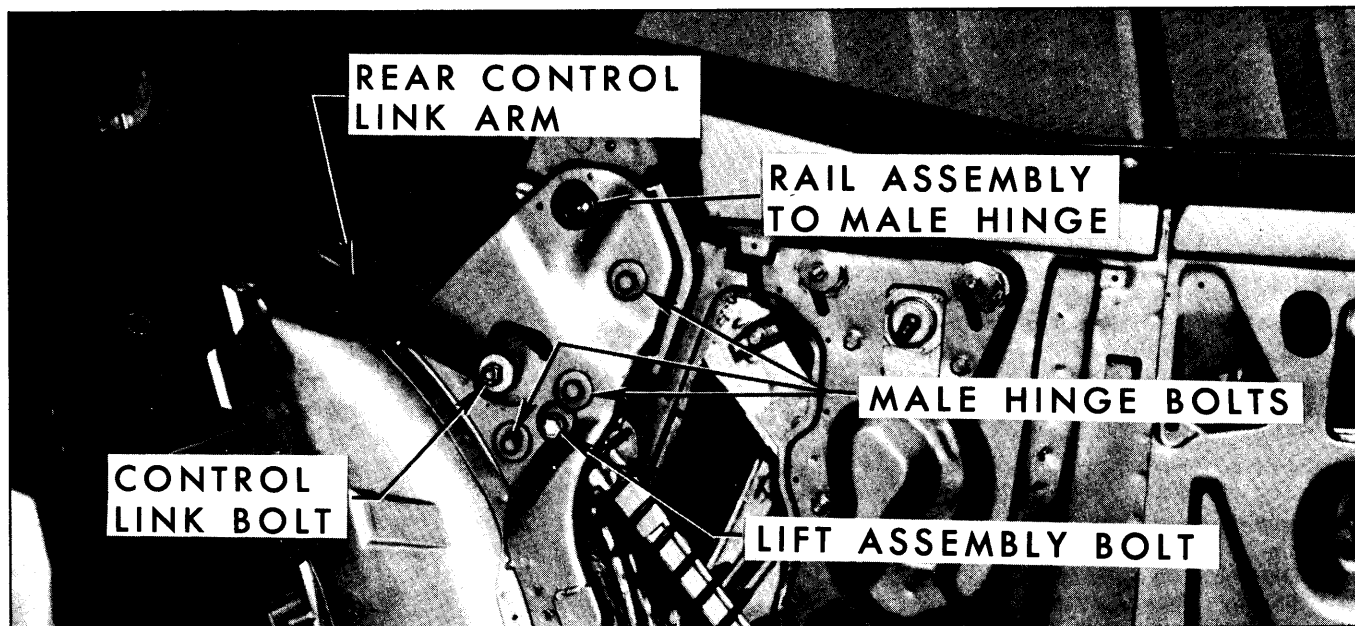


Fig. 13-83—Folding Top Linkage Attachment "F" Styles

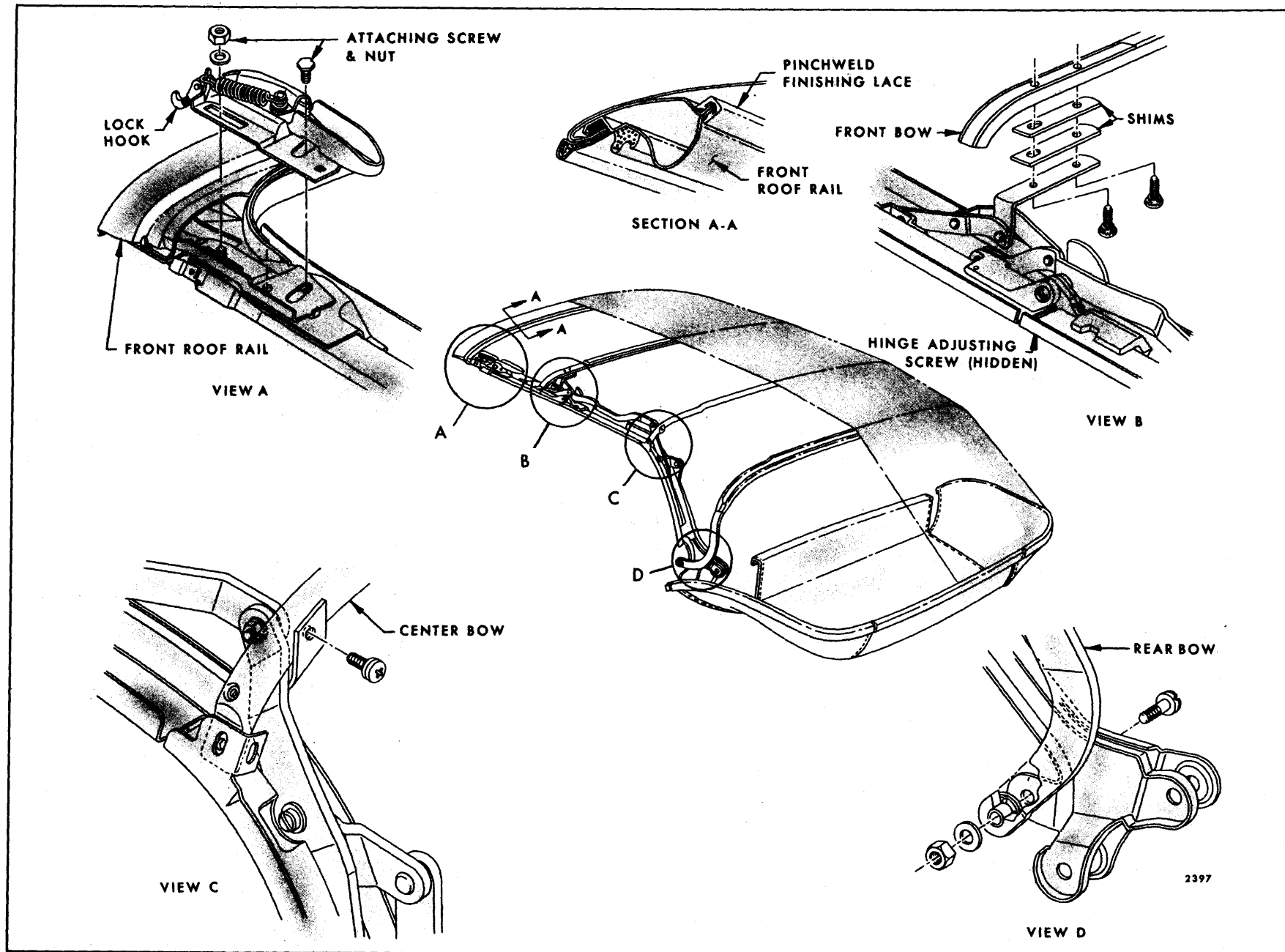


Fig. 13-84—Folding Top Adjustments - "F" Styles

tween side roof rail and rear quarter window.

- d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.
 - e. Check fit of top material at rear quarter and, if necessary, adjust trim stick.
 - f. On styles equipped with manually-operated folding tops, adjust folding top catch clips as required (See "Folding Top Manual Lift Section").
3. If top does not stack properly when top is in down position proceed as follows:
- a. Scribe location of male hinge attaching bolt washers on folding top compartment brace.
 - b. Loosen male hinge bolts.
 - c. Rotate male hinge forward to lower stack

height or rearward to raise stack height (Fig. 13-83).

NOTE: When rotating male hinge be certain position of rear rail to male hinge is maintained (Fig. 13-83).

- d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.
- e. On styles equipped with manually operated folding tops, adjust both folding top catch clips as required (See "Folding Top Manual Lift").

TROUBLE SHOOTING CHART

The following procedure describes and illustrates various types of folding top misalignment conditions, their apparent causes and the recommended procedure for their correction.

TROUBLE SHOOTING CHART "F" STYLES

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	<ol style="list-style-type: none"> 1. Lock hook too short. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned. 	<p>Adjust lock hook counterclockwise (See View "A" in Fig. 13-84).</p> <p>Loosen, realign and retack front roof rail front weatherstrip.</p> <p>Adjust front roof rail.</p>
B. Top does not lock tight enough to windshield header.	<ol style="list-style-type: none"> 1. Lock hook too long. 2. Misaligned front roof rail weatherstrips. 	<p>Adjust lock hook clockwise.</p> <p>Loosen and realign front roof rail weatherstrips.</p>
C. Top travels too far forward.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 2. Male hinge misaligned. 	<p>Adjust front roof rail rearward.</p> <p>Adjust male hinge rearward (Fig. 13-83).</p>
D. Top does not travel forward far enough.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 2. Male hinge misaligned. 	<p>Adjust front roof rail forward.</p> <p>Adjust male hinge forward.</p>
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	<ol style="list-style-type: none"> 1. Male hinge misaligned. 	<p>Adjust male hinge rearward.</p>

TROUBLE SHOOTING CHART "F" STYLES (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge forward and/or shim side roof rail rear weatherstrip forward as required.
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward.
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge downward and/or shim side roof rail rear weatherstrip downward as required.
I. Side roof rails low.	1. Control link misaligned.	Adjust control link downward (Fig. 13-83).
	2. Center side roof rail hinge adjusting screw protrudes.	Back off adjusting screw (See View "B" in Fig. 13-84).
J. Side roof rails high.	1. Control link misaligned.	Adjust control link upward.
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned male hinge assembly.	Rotate male hinge forward or rearward as required.
	2. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips downward as required.
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned male hinge assembly.	Rotate male hinge rearward as required.
	2. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips upward as required.
M. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Install one or two 1/8" shims between front roof bow and slat iron.
	2. Excessive width in top material.	If top is too large, detach binding along affected area; trim off excessive material along side binding as required; then hand sew binding to top material.

TROUBLE SHOOTING CHART "F" STYLES (Cont'd.)

CONDITION	APPARENT CAUSE	CORRECTION
N. Top material is too high over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Remove one or two 1/8" shims from front roof bow and slat iron.
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted. 2. Top material improperly installed to center or rear quarter trim stick.	Adjust rear quarter trim stick on side affected. Reposition and retack top material as required.

*When no shims are required or when installing only one shim, use attaching screw part #4412844 (1/4 - 20 x 5/8" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

When two shims are required, use attaching screw part #4412619 (1/4 - 20 x 3/4" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

FOLDING TOP ADJUSTMENTS—"Z" BODY

DESCRIPTION

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, quarter trim sticks or side roof rail weatherstrips.

CAUTION: When operating a manually-operated folding top, hands must be kept clear of side roof rail hinges and connecting linkage.

ADJUSTMENT OF FRONT ROOF RAIL WEDGE PLATE

The folding top front roof rail wedge plates are designed to contact the side of the sunshade support and striker assembly thus aligning the front roof rail to the striker so that both side roof rail locks will easily engage with the strikers. In addition, the wedge plates act as a spacer between the front roof rail and windshield header when top is in the locked position.

If the front roof rail wedge plates do not contact the sunshade support and striker assemblies when top is locked to the windshield header, the wedge plates may be adjusted as follows:

1. Raise top assembly to half-open position.

2. Remove wedge plate by removing inboard and outboard attaching screws (Fig. 13-85).
3. Using a file, slot inboard screw hole in wedge plate.
4. Install wedge plate and attaching screws.

NOTE: Do not tighten screws.

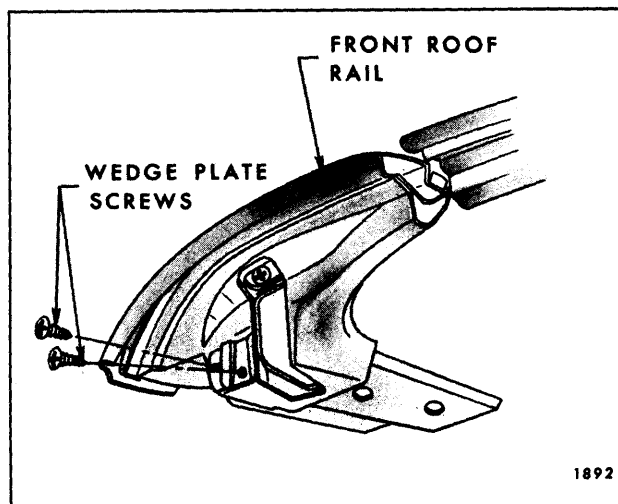


Fig. 13-85—Front Roof Rail Wedge Plate - "Z" Styles

5. Move wedge plate in or out sufficiently so wedge plate will contact side of striker as-

sembly when top is locked to windshield header. Tighten attaching screws.

6. Lock top to windshield header.

NOTE: The sunshade support and striker assembly is not adjustable.

ADJUSTMENT OF FRONT ROOF RAIL

If the top, when in a raised position, is too far forward or too far rearward, the front roof rail may be adjusted as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.
2. Loosen side roof front rail lock attaching screws and adjust front roof rail fore or aft as required (Fig. 13-86).
3. When front roof rail is properly adjusted, tighten attaching screws and install weatherstrip attaching screws.

NOTE: If additional adjustment is required, it can be made at folding top male hinge.

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.
2. With top in a half-lowered position, remove lock attaching screws; then remove lock assembly from front rail (Fig. 13-86).
3. To install, reverse removal procedure and align front roof rail as required.

FRONT ROOF RAIL LOCK ADJUSTMENT

If the locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as follows:

1. To tighten or increase locking action, turn lock hook clockwise (Fig. 13-87).
2. To reduce or decrease locking action, turn lock hook counterclockwise (Fig. 13-86).

ADJUSTMENT OF TOP CONTROL LINK ADJUSTING PLATE

1. With top in "up" position, if side roof rail is too high or too low, proceed as follows:
 - a. Loosen two bolts securing control link ad-

justing plate sufficiently to permit adjustment (Fig. 13-87).

- b. Without changing fore and aft location of adjusting plate, adjust side roof rail up or down allowing adjusting plate to move up or down over serrations on support as required; then tighten bolts.

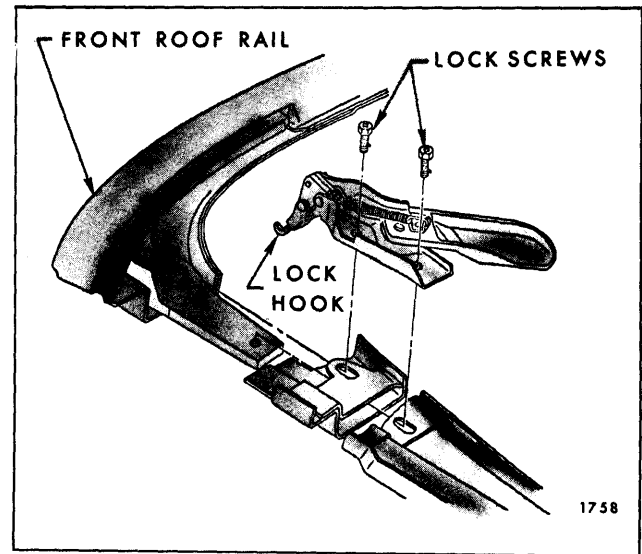


Fig. 13-86—Front Roof Rail and Lock Attachment - "Z" Styles

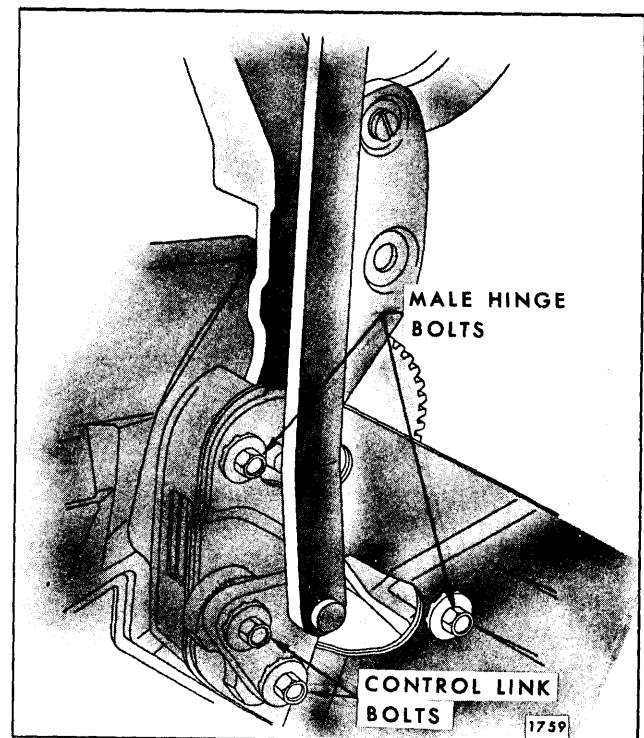


Fig. 13-87—Male Hinge and Top Control Link Attachment "Z" Styles

2. If top assembly does not stack properly when top is in down position, proceed as follows:
 - a. Loosen rear quarter trim stick attaching bolts on side to be adjusted.
 - b. Scribe location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.
 - c. Loosen male hinge and control link attaching bolts (Fig. 13-87).
 - d. Rotate male hinge assembly forward or rearward around linkage pivot point, as required; then tighten attaching bolts, (Fig. 13-88) and check alignment.

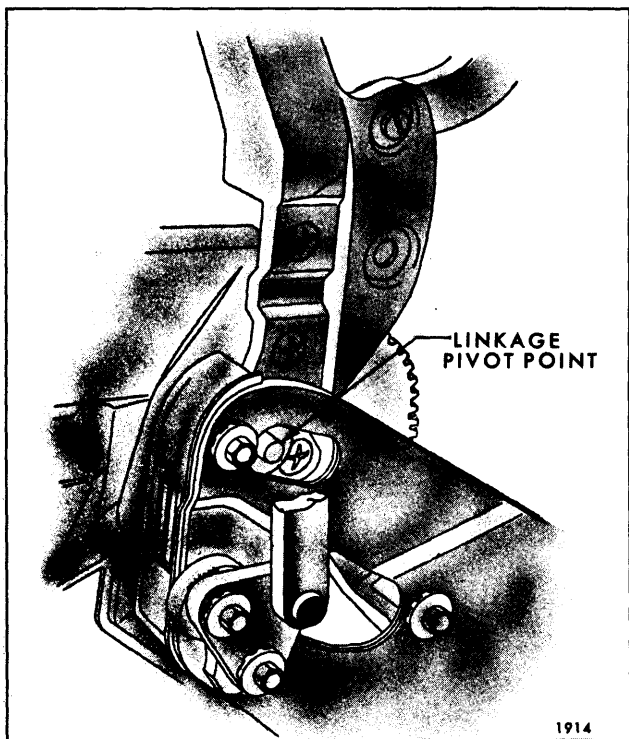


Fig. 13-88—Folding Top Linkage Pivot Point "Z" Styles

- e. On styles equipped with manually operated folding top, adjust both folding top catch clips as required (See "Folding Top Manual Lift").
- f. Lock top to windshield header; then check fit of top material at rear quarter. Adjust trim stick as required.

ADJUSTMENT OF MALE HINGE

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing rear quarter trim stick to body. This will prevent possible damage to top cover when it is raised after adjustment. After making an adjustment at male hinge, check top cover at rear quarter area for proper fit and, if necessary, adjust trim stick assembly.

1. If there is an excessive opening between side roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:
 - a. Scribe location of male hinge attaching bolt washers and control link on folding top compartment brace.
 - b. Loosen male hinge and control link attaching bolts (Fig. 13-87).
 - c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window, then tighten bolts.
 - d. Lock front roof rail to windshield header and check fit of top material at rear quarter trim stick; then tighten trim stick attaching bolts.
 - e. Check top assembly for proper stack height. Where required, adjust control link adjusting plate.
 - f. On styles equipped with manually operated folding tops, adjust both folding top catch clips as required (See "Folding Top Manual Lift Section").
2. If side roof rail is too high or too low at rear quarter window area, proceed as follows:
 - a. Scribe location of male hinge attaching bolt washers and control link on folding top compartment brace.
 - b. Loosen male hinge bolts and control link attaching bolts (Fig. 13-87).
 - c. Without changing fore and aft location of male hinge, adjust male hinge up or down as required to obtain proper alignment between side roof rail and rear quarter window.
 - d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.
 - e. Check fit of top material at rear quarter and, if necessary, adjust trim stick.
 - f. Check top assembly for proper stack height. Where required, adjust control link adjusting plate.
 - g. On styles equipped with manually operated folding tops, adjust both folding top catch clips as required (See "Folding Top Manual Lift Section").

TROUBLE SHOOTING CHART "Z" STYLES

The following procedure describes and illustrates various types of folding top misalignment conditions, their apparent causes and the recommended procedure for their correction.

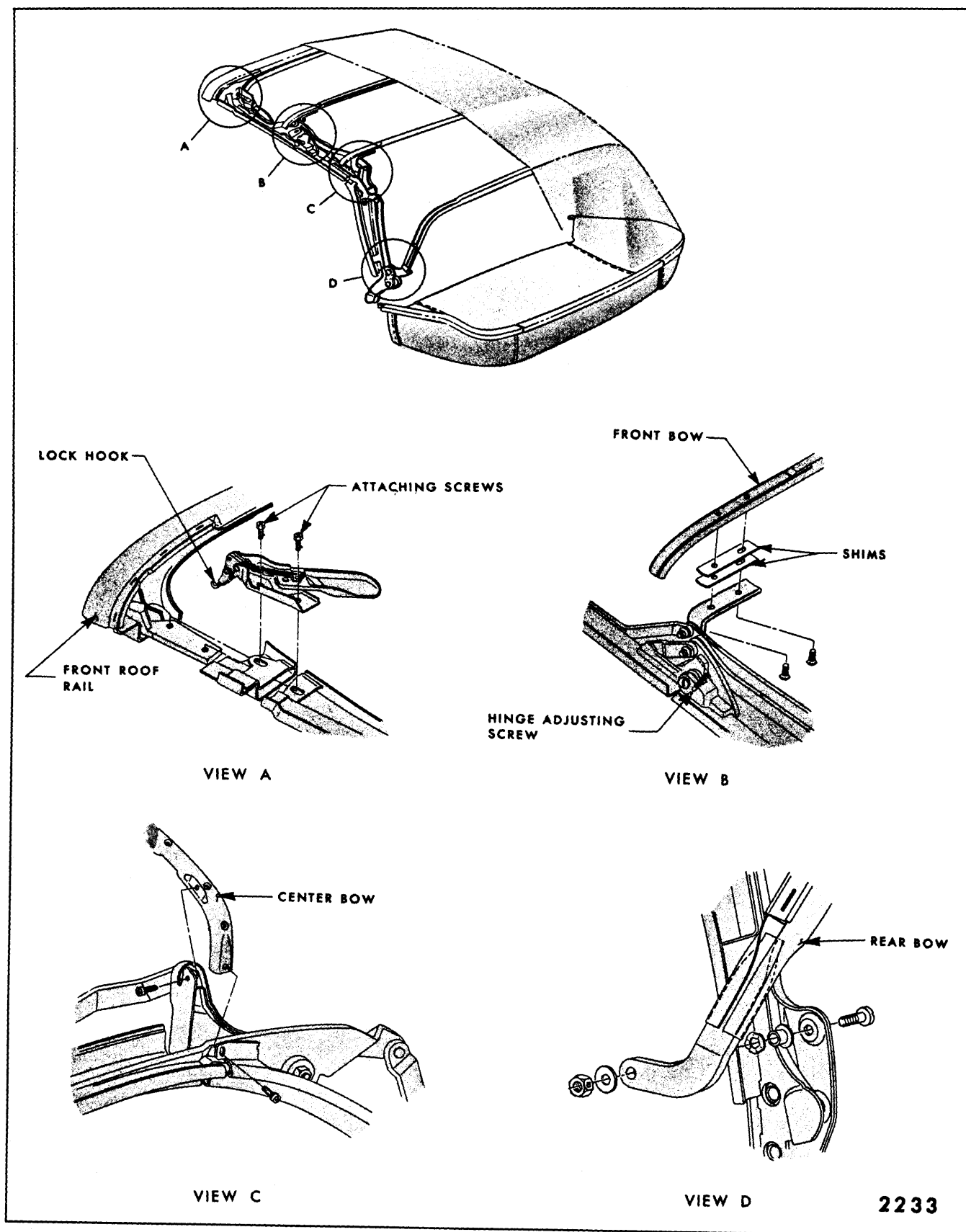


Fig. 13-89—Folding Top Adjustments - "Z" Styles

TROUBLE SHOOTING CHART "Z" STYLES (Cont'd.)

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	<ol style="list-style-type: none"> 1. Lock hook too short 2. Misaligned front roof rail weatherstrips. 3. Front roof rail misaligned. 	<p>Adjust lock hook counterclockwise (View "A" in Fig. 13-89)-</p> <p>Loosen and realign front roof rail front weatherstrip.</p> <p>Adjust front roof rail.</p>
B. Top does not lock tight enough to windshield header.	<ol style="list-style-type: none"> 1. Lock hook too long. 2. Misaligned front roof rail weatherstrips. 	<p>Adjust lock hook clockwise.</p> <p>Loosen and realign front roof rail weatherstrips.</p>
C. Top travels too far forward.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 2. Male hinge misaligned. 	<p>Adjust front roof rail rearward.</p> <p>Adjust male hinge rearward (Fig. 13-87).</p>
D. Top does not travel forward far enough.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 2. Male hinge misaligned. 	<p>Adjust front roof rail forward.</p> <p>Adjust male hinge forward.</p>
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	<ol style="list-style-type: none"> 1. Male hinge misaligned. 	Adjust male hinge rearward.
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	<ol style="list-style-type: none"> 1. Male hinge misaligned. 	Adjust male hinge forward and/or shim side roof rail rear weatherstrip forward as required.
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	<ol style="list-style-type: none"> 1. Male hinge misaligned. 	Adjust male hinge upward.
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	<ol style="list-style-type: none"> 1. Male hinge misaligned. 	Adjust male hinge downward and/or shim side roof rail rear weatherstrip downward as required.
I. Side roof rails low	<ol style="list-style-type: none"> 1. Control link misaligned. 2. Center side roof rail hinge adjusting screw protrudes. 	<p>Adjust control link downward.</p> <p>Back off adjusting screw (View "B" in Fig. 13-89).</p>
J. Side roof rails high	<ol style="list-style-type: none"> 1. Control link misaligned. 	Adjust control link upward (Fig. 13-89).

TROUBLE SHOOTING CHART "Z" STYLES (Cont'd.)

CONDITION	APPARENT CAUSE	CORRECTION
K. Folding top dust boot is difficult to install.	<ol style="list-style-type: none"> 1. Improper stack height due to misaligned male hinge. 2. On manual tops, due to improperly adjusted catch clips. 	<p>Rotate male hinge rearward around pivot point (Fig. 13-88).</p> <p>Adjust catch clips downward.</p>
L. Folding top dust boot fits too loosely.	<ol style="list-style-type: none"> 1. Improper stack height due to misaligned male hinge. 2. Rear seat back assembly is too far rearward. 3. On manual tops, due to improperly adjusted catch clips. 	<p>Rotate male hinge forward around pivot point (Fig. 13-88).</p> <p>Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is $13" \pm 1/16"$. The dimension is measured at approximate center line of body.</p> <p>Adjust catch clips upward.</p>
M. Top material is too low over windows or side roof rails.	<ol style="list-style-type: none"> 1. Front roof bow improperly shimmed. 2. Excessive width in top material. 	<p>*Install one or two 1/8" shims between front roof bow and slat iron (View "B" in Fig. 13-89).</p> <p>If top is too large, detach binding along affected area; trim off excessive material along side binding as required; then hand sew binding to top material.</p>
N. Top material is too high over windows or side roof rails.	<ol style="list-style-type: none"> 1. Front roof bow improperly shimmed. 	<p>*Remove one or two 1/8" shims between front roof bow and slat iron (See View "B" in Fig. 13-89).</p>
O. Top material has wrinkles or draws.	<ol style="list-style-type: none"> 1. Rear quarter trim stick improperly adjusted. 2. Top material improperly installed. 	<p>Adjust rear quarter trim stick.</p> <p>Reposition and retack top material as required.</p>

*When no shims are required or when installing only one shim, use attaching screw part #4413016 (1/4 - 20 x 7/16" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

When two shims are required, use attaching screw part #4412619 (1/4 - 20 x 3/4" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).