1966 FISHER BODY SERVICE MANUAL

FOR ALL BODY STYLES

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

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

FISHER BODY DIVISION
PART NO. 4226635

LITHO IN U.S.A.
AUGUST 1965

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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:

a. 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.

b. 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 6-67.

a. Disconnect green switch-to-motor wire from motor lead in rear compartment.

b. Connect a light tester to green switch-to-motor wire terminal.

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.

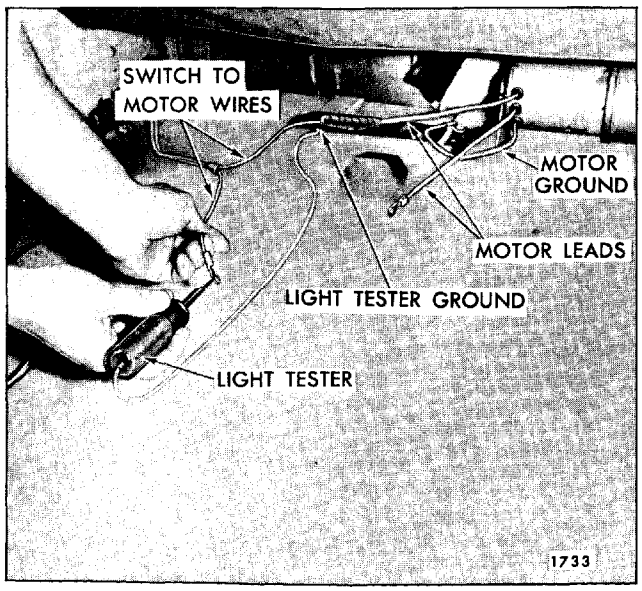

Fig. 6-67—Checking Motor Wiring

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. 6-58 and 6-59.)

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 "A" body styles, at rear compartment, remove pump and motor shield.

c. On "B & C" 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.

d. Place absorbent rags below reservoir at filler plug.

e. With a straight-bladed screwdriver, remove filler plug. Fluid level should be within 1/4 inch of lower edge of filler plug hole.

f. If fluid is low, add Delco #11 Hydraulic Fluid (GM Hydraulic Brake Fluid Super #11 or its equivalent) to bring to specified level. See "Filling of Hydro-Lectric Reservoir".

g. Install filler plug.

h. On "A" body styles, install pump and motor shield.

i. On "B & C" body styles 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 folding top compartment side panel assemblies. On "B & C" body styles remove rear seat back.

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 brake fluid to remove any oxidation and/or accumulated grime. With another clean cloth, apply a light film of brake fluid to the piston rods to act as a lubricant.

CAUTION: Exercise care so that brake 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. See Figure 6-68.

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.

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.

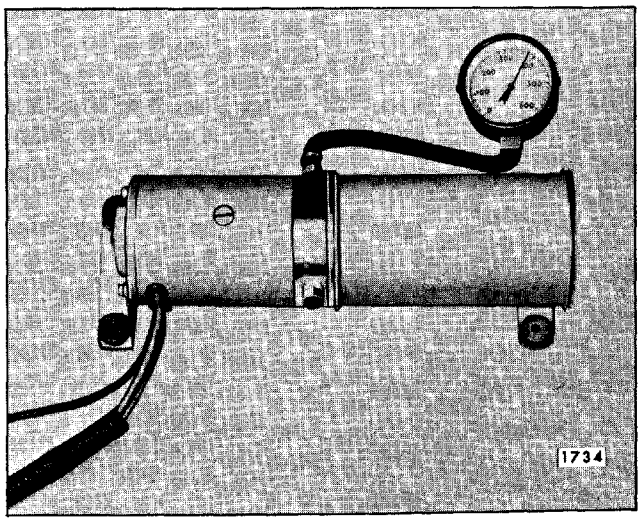

Fig. 6-68—Checking Pump Pressure

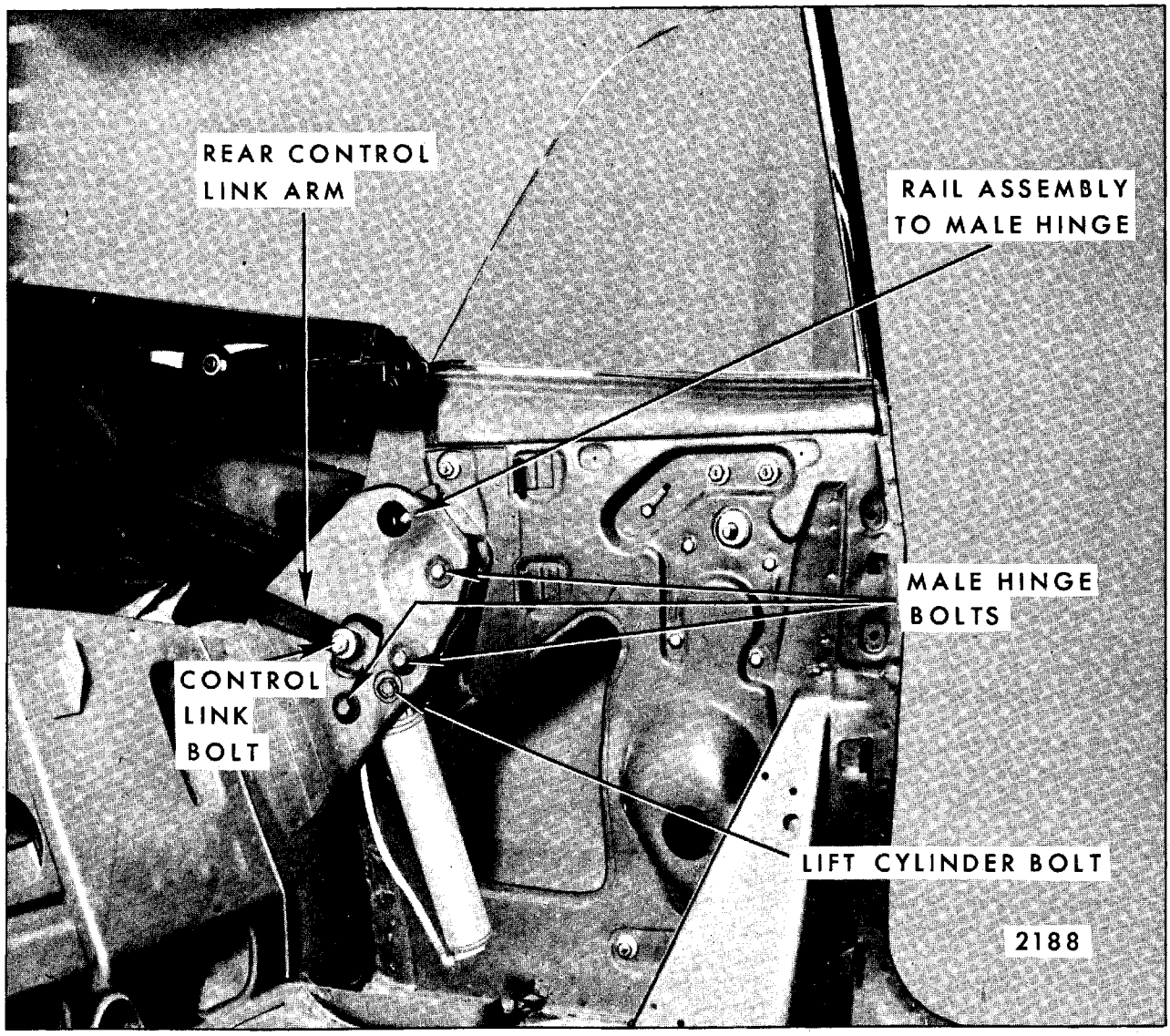

Fig. 6-69—"A" Body Hydraulic Lift Cylinder Attachment

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 6-69 and 6-70.
7. Remove inner and outer bolt securing cylinder to male hinge (Fig. 6-70).
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.

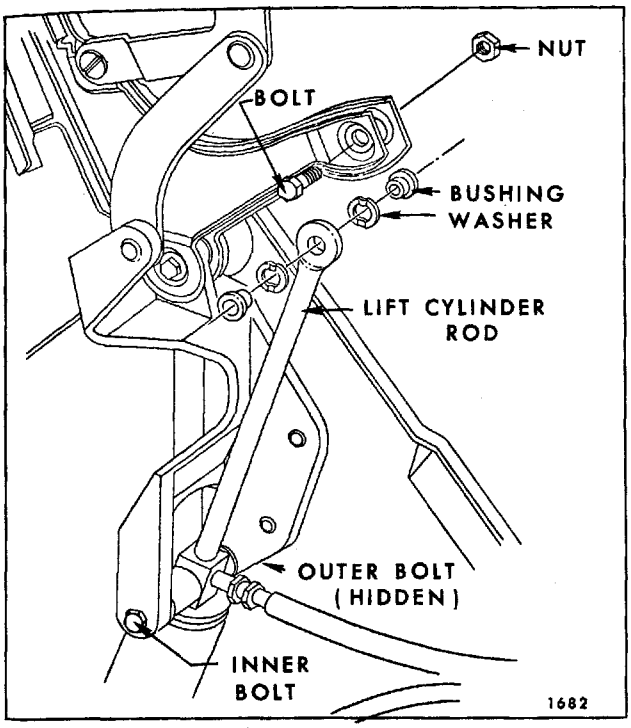

Fig. 6-70—"B and C" Body Hydraulic Lift Cylinder Attachment

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 several 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.

1. Filler Plug Adapter.

   a. Drill 1/4 inch diameter hole through center of spare reservoir filler plug.

   b. Install two inch length of metal tubing (1/4" O.D. x 3/16" I.D.) into center of filler plug and solder tubing on both sides of filler plug to form air tight connection. See Figure 6-71.

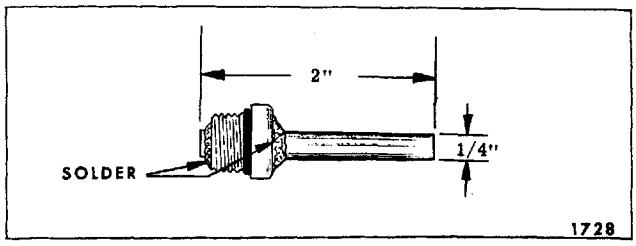

Fig. 6-71—Reservoir Filler Plug Adapter

2. Filling and Bleeding Reservoir.

   a. On "A" body styles, with top in raised position, remove folding top compartment bag material from rear seat back panel and remove pump and motor shield.

   b. On "B & C" body styles perform the following:

      (1) Remove rear seat cushion and back.

      (2) Working from inside of body, detach front edge of folding top compartment bag from rear seat back panel.

      (3) Remove clips securing hydraulic hose to rear seat back panel.

      (4) To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from compartment pan brace.

   c. Place absorbent rags below reservoir at filler plug. Using a straight-bladed screwdriver, slowly remove filler plug from reservoir.

IMPORTANT: When installing new or overhauled motor and pump assembly, as a bench operation, fill reservoir to specified level with hydraulic fluid. This operation is necessary as pump must be primed prior to operation to avoid drawing excessive amount of air into hydraulic system.

   d. Install filler plug adapter to reservoir and attach four or five foot length of 3/16 inch I.D. rubber tubing or hose to filler plug tubing.

   e. Install opposite end of hose into a container of GM Hydraulic Brake Fluid Super #11 or equivalent. (Fig. 6-72 shows typical set-up.)

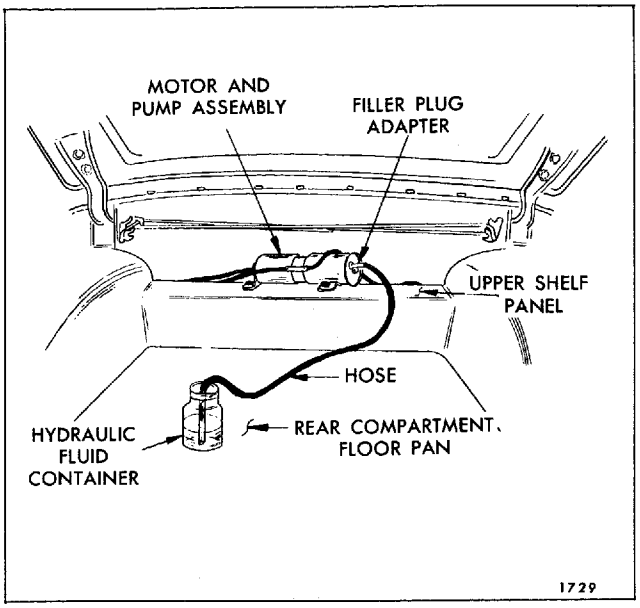

Fig. 6-72—Filling Reservoir

NOTE: Container should be placed in rear compartment area of body, below level of fluid in the reservoir. In addition, sufficient fluid must be available in container to avoid drawing air into hydraulic system.

f. 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 filling with fluid.

g. Operate top several times or until operation of top is consistently smooth in both up and down cycles.

h. Remove hose from filler plug tubing and remove filler plug adapter from reservoir.

i. Check level of fluid in reservoir and reinstall original filler hole plug.

NOTE: Fluid level should be within 1/4 inch of lower edge of filler plug hole.

ACTUATOR ASSEMBLY—All "Z" Body 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. 6-73).
6. Mark location of control link adjusting plate on folding top compartment brace (Fig. 6-73).
7. Remove control link adjusting plate attaching bolts.
8. Mark location of female hinge attaching bolt washers on folding top compartment brace (Fig. 6-73).
9. Remove female hinge attaching bolts and remove actuator assembly from body.

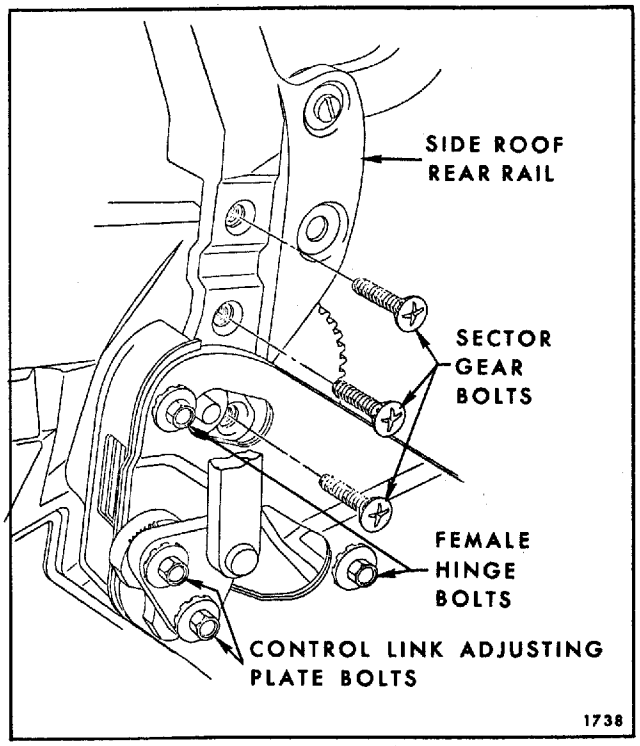

Fig. 6-73—Actuator Attachment

INSTALLATION

1. Install female hinge attaching bolts to new actuator assembly, using washer scribe marks as guide (Fig. 6-73).

2. Install control link adjusting plate attaching bolts, using scribe mark of control link as guide (Fig. 6-73).

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. 6-73).

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. 6-74).

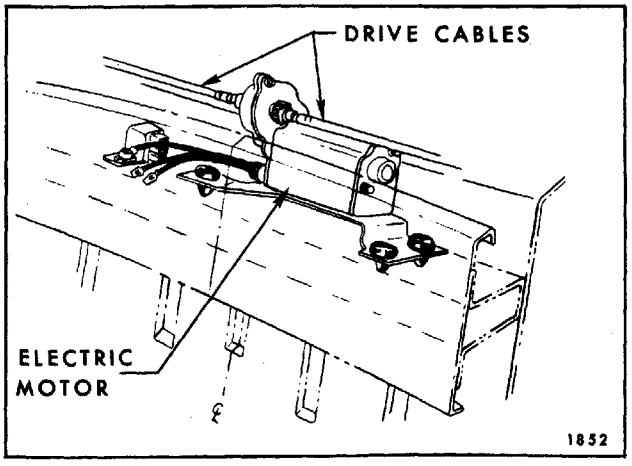

Fig. 6-74—Folding Top Electric Motor and Cables

   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.

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.

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. 6-74).

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.

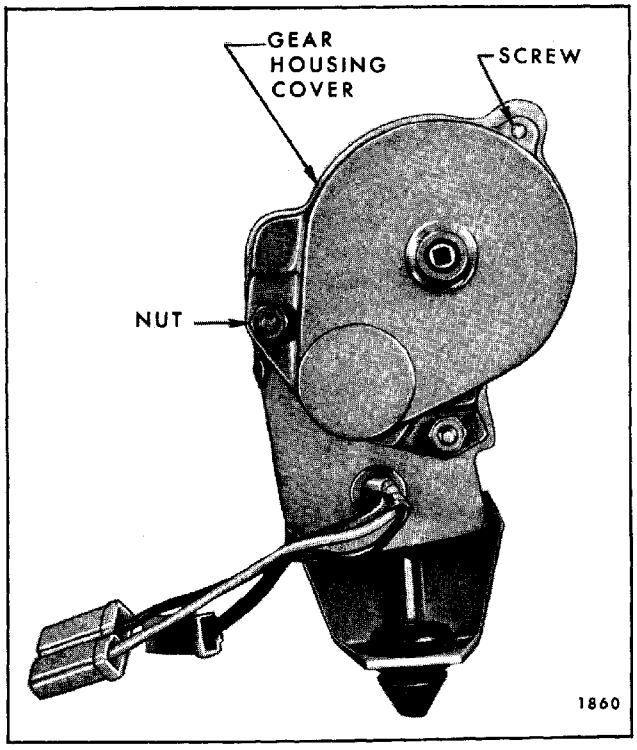

Fig. 6-75—Folding Top Lift Assembly

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. 6-75).

4. Disassemble folding top lift assembly as shown in Figure 6-76.

5. To assemble, reverse disassembly procedure.

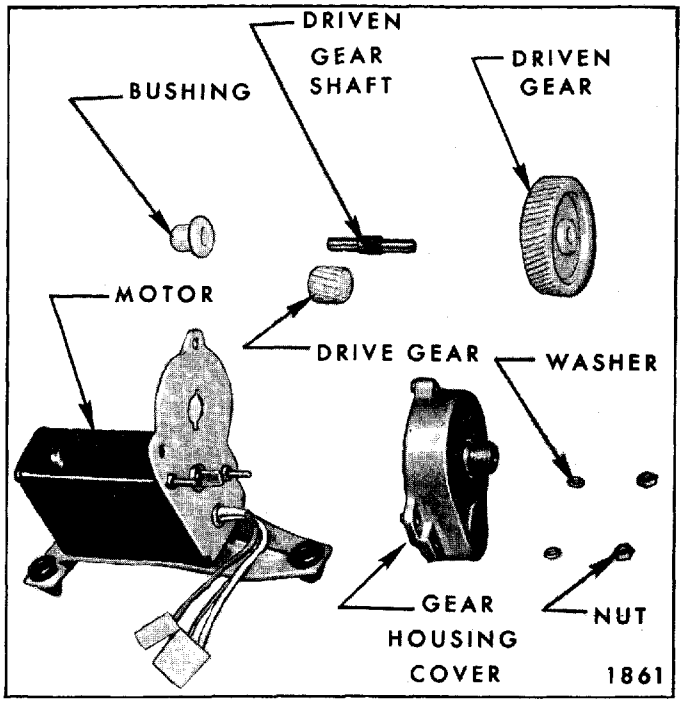

Fig. 6-76—Folding Top Lift Disassembled

FOLDING TOP MANUAL LIFT ASSEMBLY ALL CONVERTIBLE BODIES WITH MANUALLY—OPERATED FOLDING TOPS

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. Remove rear seat cushion and back and folding top compartment side trim panel assembly on side affected.

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. Remove inner and outer bolt securing lift assembly to male hinge; then remove assembly from body (Fig. 6-77 for "A" body and Fig. 6-78 for "Z" body).

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

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 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

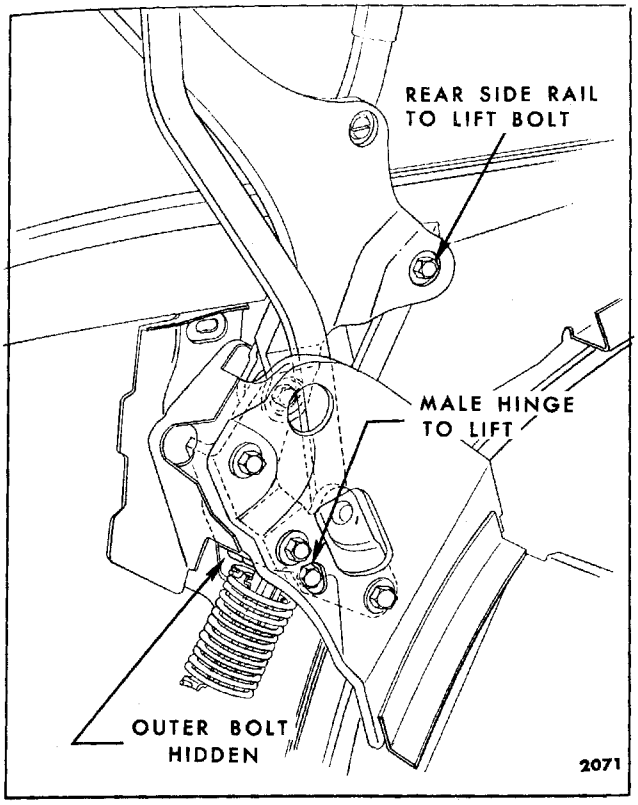

Fig. 6-77—"A" Body Manual Lift Assembly

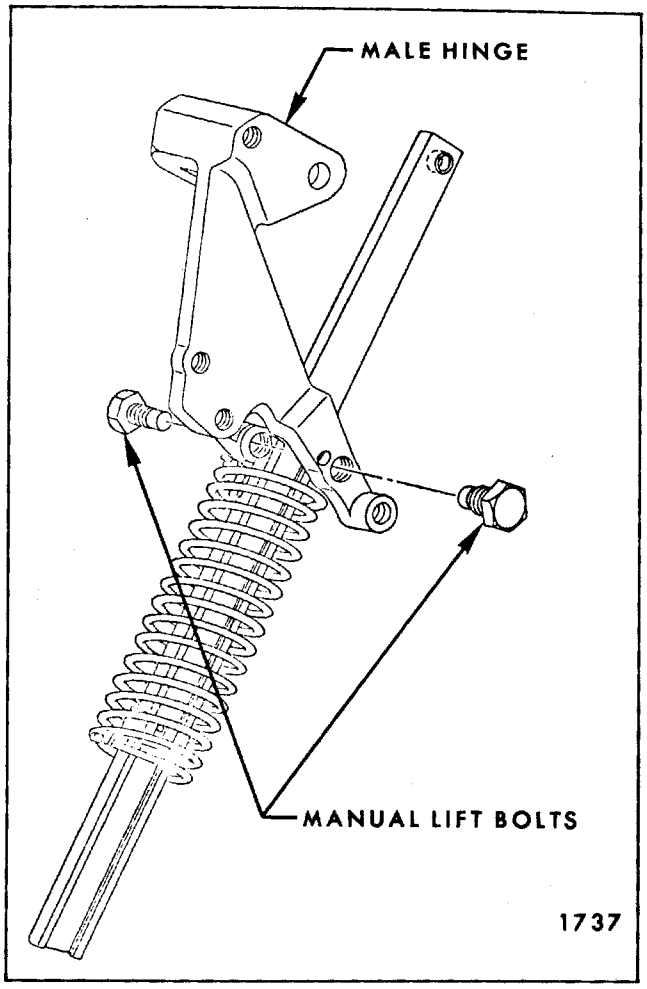

Fig. 6-78—Manual Lift Attachment

(See "Folding Top Adjustments") require corresponding adjustments to the catch clips.

FOLDING TOP ADJUSTMENTS—"A" 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, 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 linkages.

ADJUSTMENT OF FOLDING TOP FRONT ROOF RAIL WEDGE PLATE

The folding top front roof rail wedge plates are designed to contact 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 right wedge plate may be adjusted as follows:

NOTE: The left wedge plate functions as a locator and is not adjustable.

1. Raise top assembly to half-open position.
2. Loosen wedge plate attaching screws (Fig. 6-79).

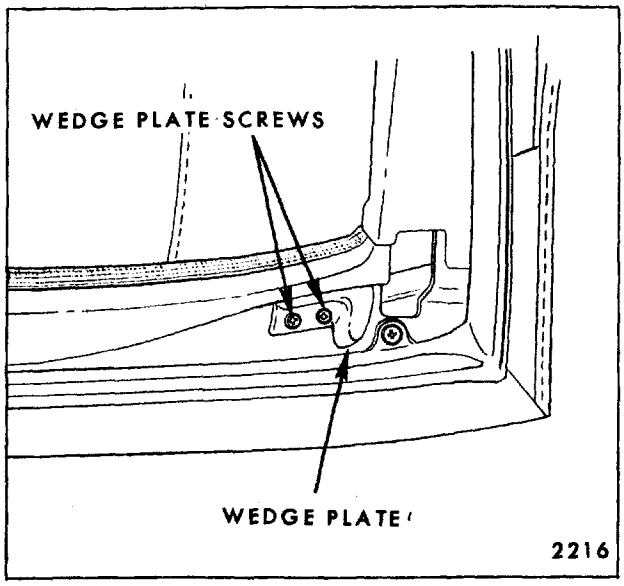

Fig. 6-79—Front Roof Rail Wedge Plate

3. Adjust wedge plate in or out sufficiently so that wedge plate will strike assembly when top is locked to windshield header.

4. Tighten attaching screws.

5. Lock top to windshield header.

6. Readjust wedge plate until desired adjustment is obtained.

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

ADJUSTMENT OF TOP AT 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 assembly attaching screws on side roof front rail and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary. (See View "A", Fig. 6-80.)

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

3. When front roof rail is properly adjusted, tighten lock assembly and install weatherstrip attaching screws.

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.

2. With top in a half-open position, remove lock attaching screws; then remove lock assembly from front roof rail. (See View "A", Fig. 6-80).

3. To install, reverse removal procedure.

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 "up" position, if joint between front and center side roof rail is too high or too low, proceed as follows:

   a. Remove folding top compartment side trim panel.

   b. Loosen one bolt securing control link sufficiently to permit adjustment of link (See Fig. 6-81).

   c. Adjust side roof rail up or down allowing link to move up or down over serrations on support as required; 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 folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top 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:

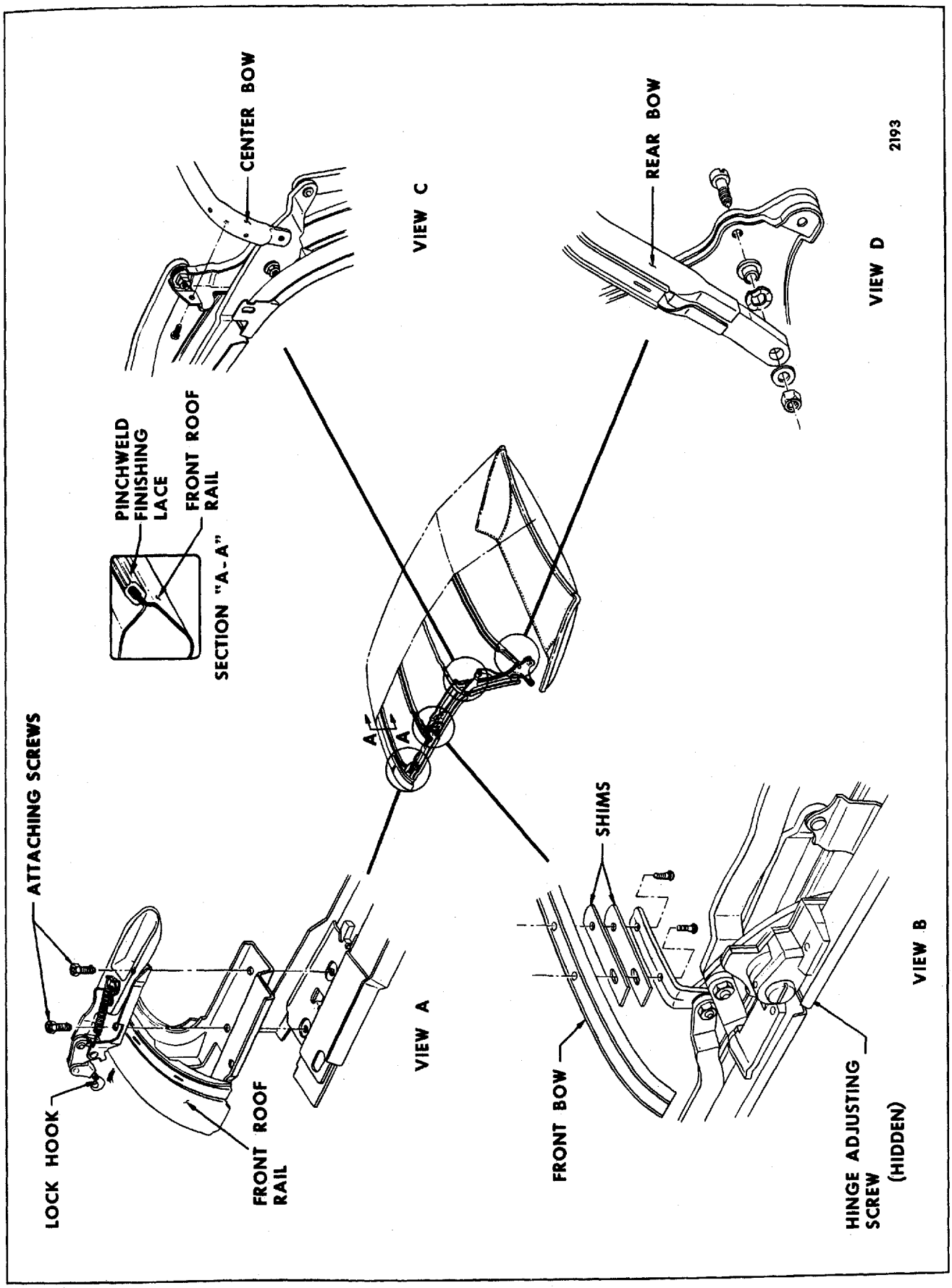

Fig. 6-80—"A" Body Folding Top Adjustments

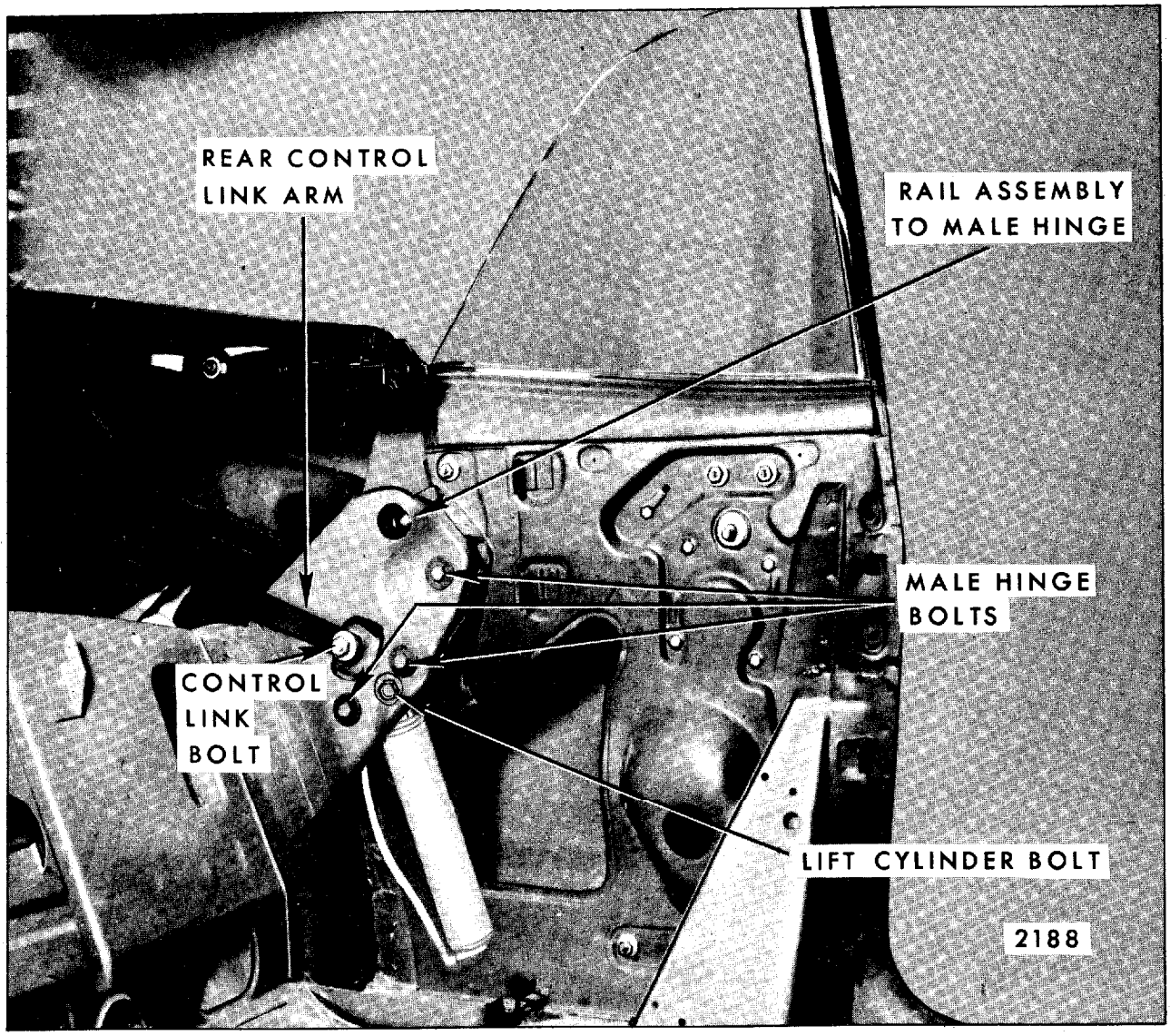

Fig. 6-81—"A" Body Convertible Top Linkage Attachments

a. Scribe location of male hinge attaching bolt washers on folding top compartment brace.

b, Loosen male hinge assembly (Fig. 6-81).

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, (where required, adjust front roof rail as previously described), and check fit at 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 "Manually Operated Folding Top Hardware").

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 assembly (see Fig. 6-81).

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 trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

f. On styles equipped with manually-operated folding tops, adjust folding top catch clips as required. (See "Manually Operated Folding Top Hardware").

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 assembly.

c. Rotate male hinge forward to lower stack height or rearward to raise stack height (Fig. 6-81).

NOTE: When rotating male hinge be certain position of rear rail to male hinge is maintained (Fig. 6-81).

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 "Manually Operated Folding Top Hardware").

TROUBLE SHOOTING CHART

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

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted.	Adjust lock hook counterclockwise. (See View "A" in Fig. 6-80).
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail. (View "A" in Fig. 6-80).
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted.	Adjust lock hook clockwise. (See View "A" in Fig. 6-80).
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misalinged.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (see View "A" in Fig. 6-80).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward. (Fig. 6-81).
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward. (See View "A" in Fig. 6-80).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward. (Fig. 6-81).
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward. (Fig. 6-81).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward and/or shim side roof rail rear weatherstrip forward as required (Fig. 6-81).
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward. (Fig. 6-81).
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. (Fig. 6-81).
I. Sag at front to center side roof rail joint.	1. Control link misaligned.	Adjust control link downward. (Fig. 6-81).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise. (See View "B" in Fig. 6-80).
J. Front and center side roof rails bow upward at hinge joint.	1. Control link misaligned.	Adjust control link upward. (Fig. 6-81).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise. (See View "B" in Fig. 6-80).
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. (Fig. 6-81).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 15-5/8" $\pm$ 1/16". The dimension is measured at approximate centerline of body.
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.
	5. On manual tops, due to improperly adjusted catch slips.	Adjust catch clips downward as required.

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned male hinge assembly.	Rotate male hinge assembly rearward as required. (Fig. 6-81).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 15-5/8" ± 1/16". The dimension is measured at approximate centerline of body.
	3. 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. (See View "B" in Fig. 6-80).
	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.
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 between front roof bow and slat iron. (See View "B" in Fig. 6-80).
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center or rear quarter trim stick.	Retack top material as required.
P. Wind whistle or waterleak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables 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—"B & C" Body

DESCRIPTION

The folding top linkage consists of three sections of right and left side roof rails and a front roof rail connected by bolts, hinges, and a series of connecting links and bows. The top linkage is attached to the body at the rear quarter area by a male hinge. The hinge is attached directly to the quarter panel brace. The front roof rail is locked at the windshield header by two hook type locks which are an integral part of the two 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 adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, trim sticks or side roof rail weatherstrips.

ADJUSTMENT OF FOLDING TOP FRONT ROOF RAIL GUIDE

If the front roof rail guides do not properly engage with the striker assemblies when the top is in an "up" or raised position, the guides may be adjusted laterally as follows:

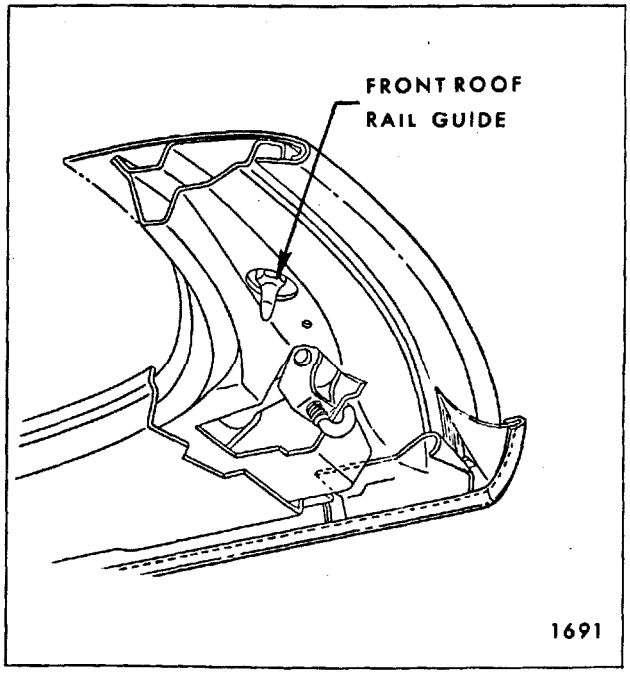

Fig. 6-82—Guide Adjustment

1. Raise top assembly to half-open position.
2. Loosen guide sufficiently to permit adjustment (Fig. 6-82).
3. Shift guide to desired position; then tighten guide.

NOTE: The sunshade support and striker assembly is not adjustable. In addition, adjustment of guide is limited. If additional adjustment is required, particularly fore and aft movement of the front roof rail, it can be obtained by adjusting the front roof rail and/or folding top male hinge.

ADJUSTMENT OF TOP AT FRONT ROOF RAIL

If the top, when in a raised position, is too far forward or does not move forward enough to allow the guide studs on the front roof rail to enter holes in the striker assemblies, 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. Repeat on opposite side if necessary (Fig. 6-83).

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

3. When front roof rail is properly adjusted, tighten lock attaching screws and install weatherstrip attaching screws.

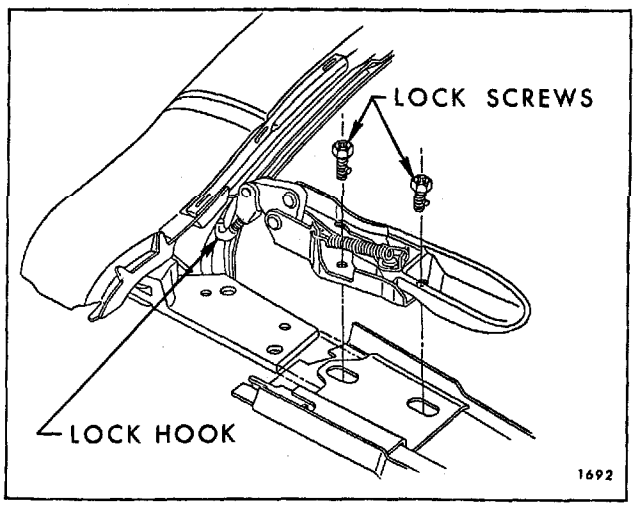

Fig. 6-83—Lock Attachment

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.
2. With top in a half-open position, remove lock attaching screws; then, remove lock assembly from front roof rail (Fig. 6-83).
3. To install, reverse removal procedure.

FRONT ROOF RAIL LOCK ADJUSTMENT

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

1. With top in up position, if joint between front and center side roof rail is too high or too low, proceed as follows:
   a. Remove folding top compartment side trim panel.
   b. Scribe location of control link adjusting plate on folding top compartment brace.
   c. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate (Fig. 6-84).
   d. 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.
2. If top assembly does not stack properly when top is in down position, proceed as follows:
   a. Scribe location of control link adjusting plate on folding top compartment brace.
   b. Loosen bolts securing control link adjusting plate sufficiently to permit adjustment of plate.
   c. Without changing the up or down location of adjusting plate, move adjusting plate forward or rearward (horizontally) over serrations as required to obtain desired height; then tighten bolts.

NOTE: If top cannot be fully lowered, even after control link plate has been adjusted, re-adjust male hinge assembly as required. Check top for proper operation.

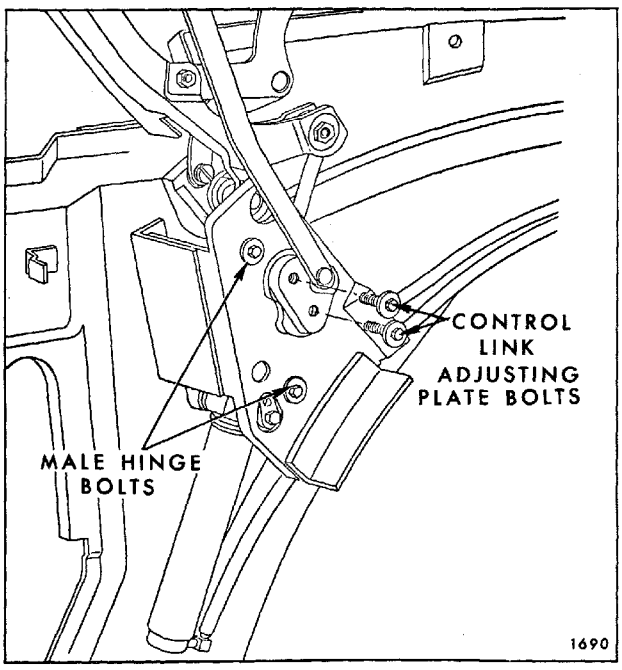

Fig. 6-84—Male Hinge Attachment

ADJUSTMENT OF TOP AT MALE HINGE SUPPORT

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top 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 assembly on folding top compartment brace.

b. Loosen male hinge assembly and control link attaching bolts (Fig. 6-84).

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, (where required, adjust front roof rail as previously described), and check fit of top material at rear quarter trim stick area. If necessary, adjust trim stick; then tighten trim stick attaching bolts.

e. Check top assembly for proper stack height and proper alignment of side roof rails over door and quarter windows. Where required, adjust control link adjusting plate as previously described. (See steps #1 and 2 under "Adjustment of Top Control Link Adjusting Plate").

NOTE: If top cannot be fully raised or lowered, even after control link plate has been adjusted, re-adjust male hinge assembly as required. Check top for proper operation.

2. If side roof rail is too high or too low at rear quarter window area, proceed as follows:

a. Mark location of male hinge attaching bolt washers and control link on folding top compartment brace.

b. Loosen male hinge assembly attaching bolts (Fig. 6-84).

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 rails and rear quarter windows.

d. Tighten attaching bolts, while maintaining proper alignment of vertical scribe marks.

e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

f. Check top assembly for proper stack height and proper alignment of side roof rails over door and quarter windows. Where required, adjust control link adjusting plate as previously described. (See steps #1 and 2 under "Adjustment of Top Control Link Adjusting Plate").

NOTE: If top cannot be fully raised or lowered, even after control link plate has been adjusted, re-adjust male hinge assembly as required. Check top for proper operation.

TROUBLE SHOOTING CHART

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted.	Adjust lock hook counterclockwise.
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail.
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted.	Adjust lock hook clockwise.
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (Fig. 6-85).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-84).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward (Fig. 6-85).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 6-84).
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-84).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 6-84) 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 (Fig. 6-84).
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 weatherstrip downward as required.
I. Sag at front of center side roof rail joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate downward (Fig. 6-84).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise (Fig. 6-85).
J. Front and center side roof rails bow upward at hinge joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate upward (Fig. 6-84).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise (Fig. 6-85).
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned control link adjusting plate.	Adjust control link plate rearward or forward as required (Fig. 6-84).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back panel rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 21-1/8" $\pm$1/16". The dimension is measured at approximate centerline of body.
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned control link adjusting plate.	Adjust control link plate forward (Fig. 6-84).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinch-weld finishing molding is 21-1/8" ± 1/16". The dimension is measured at approximate centerline of body.
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 (Fig. 6-85).
	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.
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 between front roof bow and slat iron (Fig. 6-85).
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center of rear quarter trim stick.	Retack top material as required.
P. Wind whistles or waterleak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
	2. Front roof rail contour does not conform to windshield header.	Contour of front roof rail may be changed slightly by reforming rail.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*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) or equivalent.

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) or equivalent.

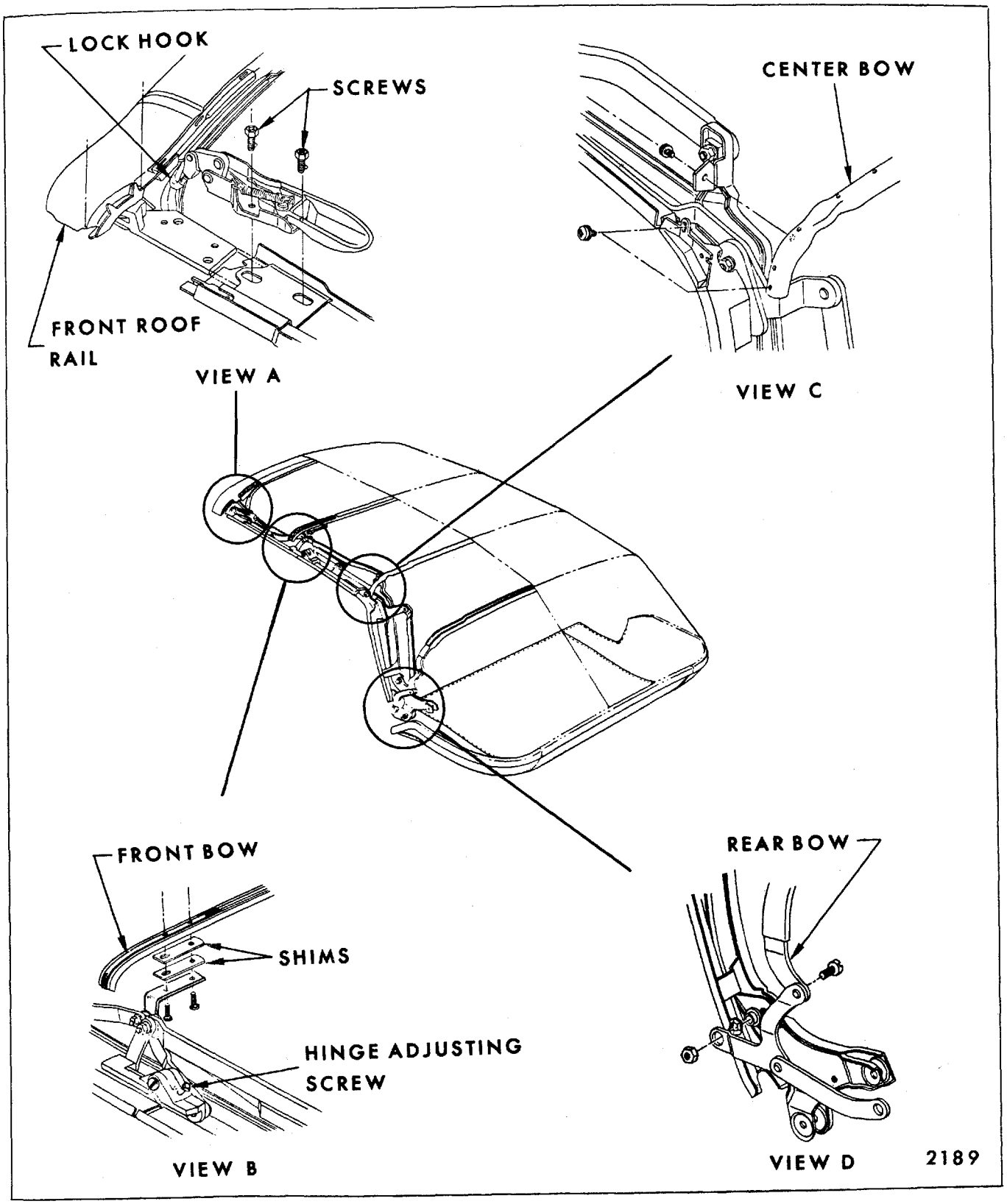

Fig. 6-85—"B and C" Body Folding Top Adjustments

a. Remove folding top compartment side trim panel.

b. Scribe location of control link adjusting plate on folding top compartment brace.

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, 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 linkages.

ADJUSTMENT OF FOLDING TOP 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. 6-86).
3. Using a file, slot inboard screw hole in wedge plate.
4. Install wedge plate and attaching screws.

NOTE: Do not tighten screws.

5. Move wedge plate in or out sufficiently so wedge plate will contact side of striker assembly 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 TOP AT 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. Repeat on opposite side if necessary (Fig. 6-87).

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

3. When front roof rail is properly adjusted, tighten attaching screws and install weatherstrip attaching screws.

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.
2. With top in a half-open position, remove lock attaching screws; then remove lock assembly from front roof rail (Fig. 6-87).
3. To install, reverse removal procedure.

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. 6-88).
2. To reduce or decrease locking action, turn lock hook counterclockwise (Fig. 6-87).

ADJUSTMENT OF TOP CONTROL LINK ADJUSTING PLATE

1. With top in "up" position, if joint between front and center side roof rail is too high or too low, proceed as follows:

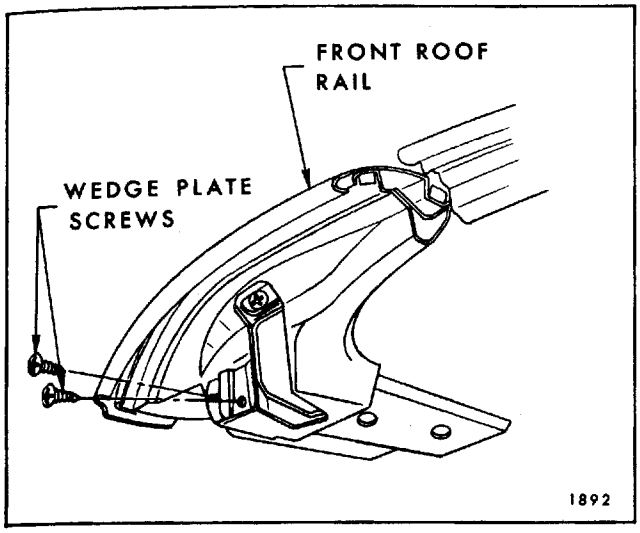

Fig. 6-86—Front Roof Rail Wedge Plate

c. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate (Fig. 6-88).

d. 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.

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.

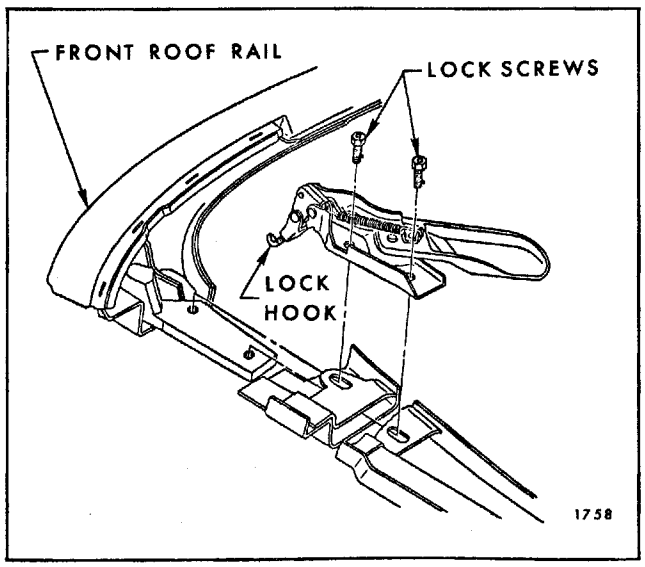

Fig. 6-87—Front Roof Rail Adjustment

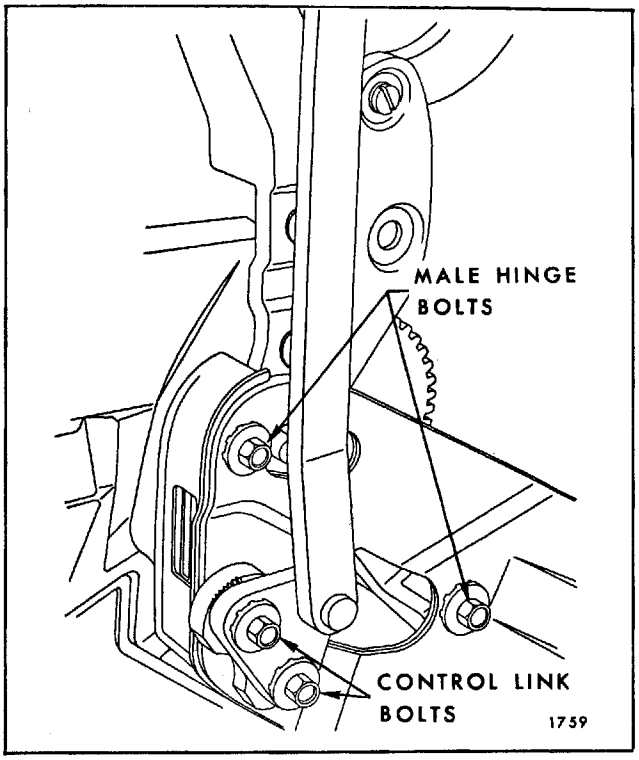

Fig. 6-88—Male Hinge Adjustment

c. Loosen male hinge assembly and control link attaching bolts (Fig. 6-88).

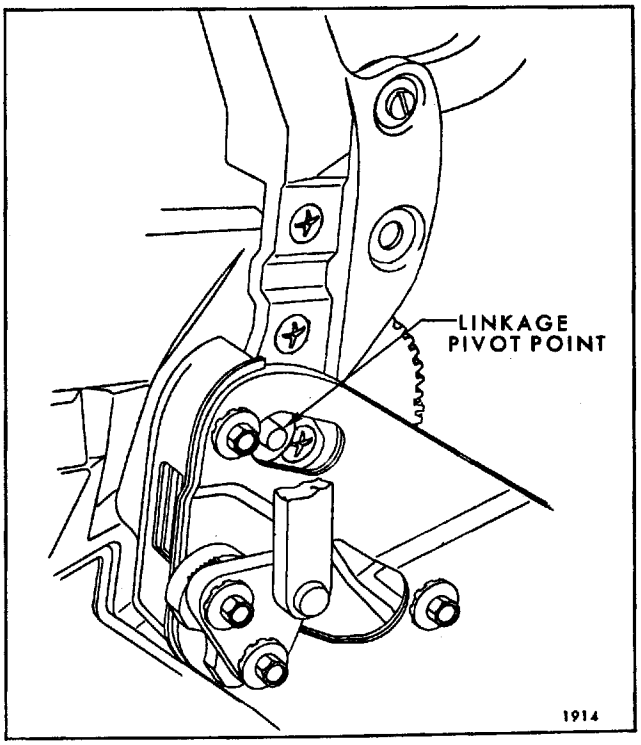

Fig. 6-89—Linkage Pivot Point

d. Rotate male hinge assembly forward or rearward around linkage pivot point, as required; then tighten attaching bolts (Fig. 6-89).

e. On styles equipped with manually operated folding top, adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

f. Lock top to windshield header; then check fit of top material at rear quarter trim stick. Adjust trim stick as required and tighten attaching bolts.

ADJUSTMENT OF TOP AT MALE HINGE

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top 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 assembly on folding top compartment brace.

   b. Loosen male hinge assembly and control link attaching bolts (Fig. 6-88).

   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.

   IMPORTANT: If male hinge has been allowed to rotate around linkage pivot point, check stack height. Where required, re-adjust male hinge for proper stack height.

   d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described), 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 as previously described. (See Step #2 under "Adjustment of Top Control Link Adjusting Plate".)

   f. On styles equipped with manually operated folding tops adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

2. If side roof rail is too high or two 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 assembly and control link attaching bolts (Fig. 6-88).

   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.

   IMPORTANT: If male hinge has been allowed to rotate, around linkage pivot point, check stack height. Where required, re-adjust male hinge for proper stack height.

   d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.

   e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

   f. Check top assembly for proper stack height. Where required, adjust control link adjusting plate as previously described. (See Step #2 under "Adjustment of Top Control Link Adjusting Plate".)

   g. On styles equipped with manually operated folding tops, adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

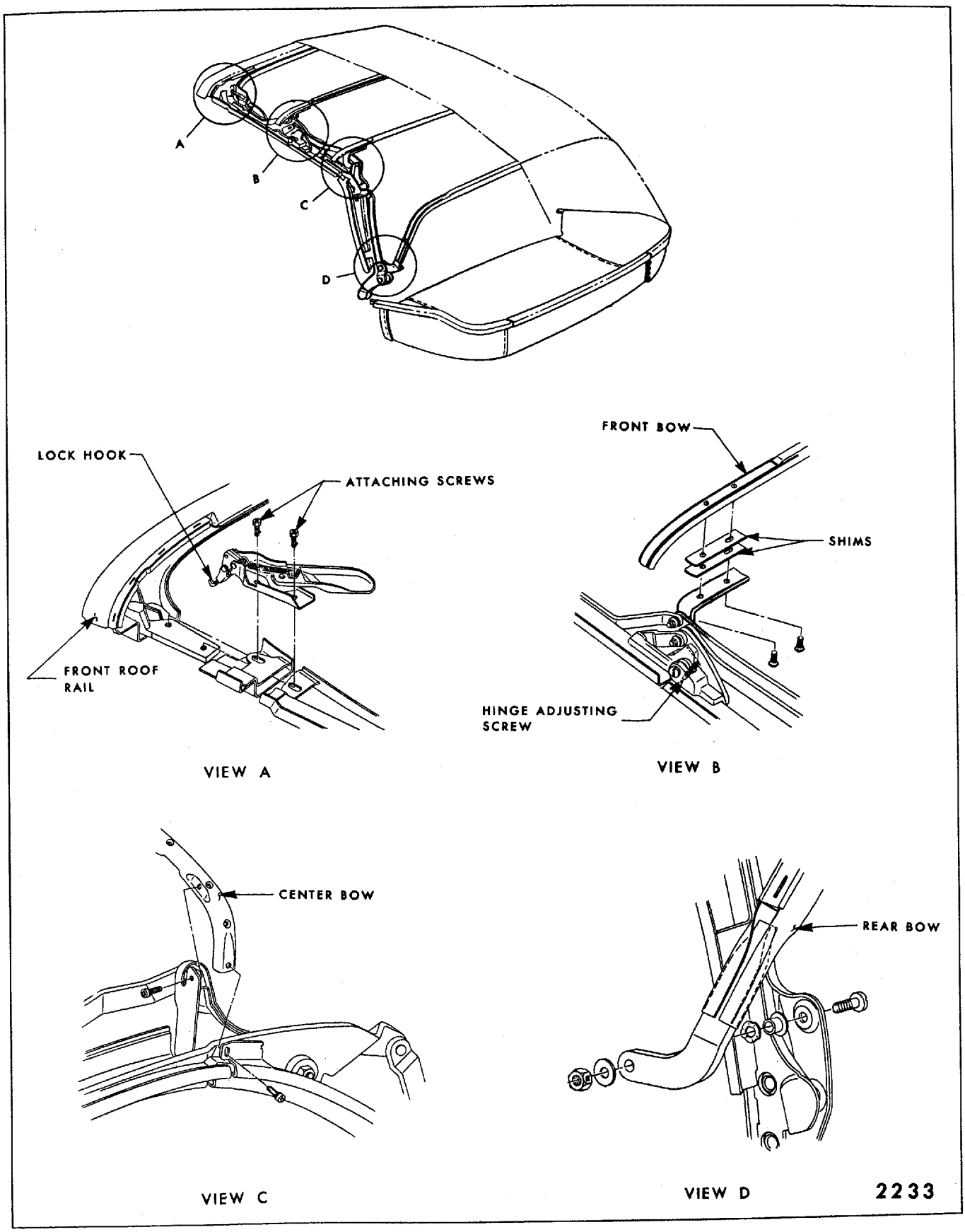

Fig. 6-90—"Z" Body Folding Top Adjustments

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.

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted.	Adjust lock hook counterclockwise. (View "A" in Fig. 6-90.)
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail. (View "A" in Fig. 6-90.)
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted.	Adjust lock hook clockwise. (View "A" in Fig. 6-90.)
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (View "A" in Fig. 6-90).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-88).
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward. (View "A" in Fig. 6-90.)
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 6-88).
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-88).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward and/or shim side roof rail rear weatherstrip forward as required (Fig. 6-88).
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward (Fig. 6-88).
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 (Fig. 6-88).
I. Sag at front to center side roof rail joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate downward (Fig. 6-88).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise. (View "B" in Fig. 6-90.)

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
J. Front and center side roof rails bow upward at hinge joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate upward (Fig. 6-90).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise. (View "B" in Fig. 6-90.)
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned male hinge.	Rotate male hinge rearward around pivot point as required (Fig. 6-89).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back rearward 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.
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.
	5. 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.	Rotate male hinge forward around pivot point as required (Fig. 6-89).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing moding is 13" $\pm$ 1/16". The dimension is measured at approximate center line of body.
	3. 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. (View "B" in Fig. 6-90).
	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.
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 between front roof bow and slat iron. (See View "B" in Fig. 6-90).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center or rear quarter trim stick.	Retack top material as required.
P. Wind whistle or water-leak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*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).