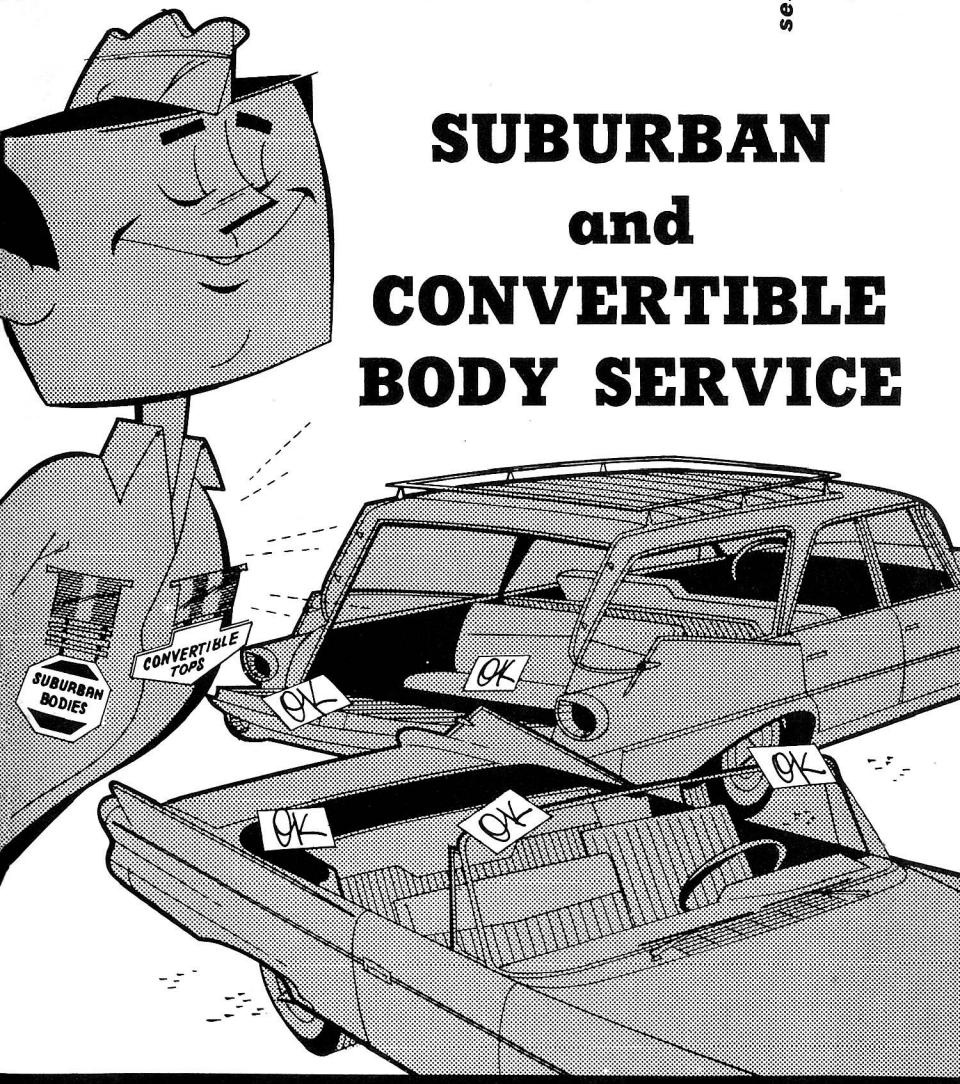
SERVICE REFERENCE BOOK

of the MASTER TECHNICIANS SERVICE CONFERENCE

session no. 152

SUBURBAN and CONVERTIBLE BODY SERVICE



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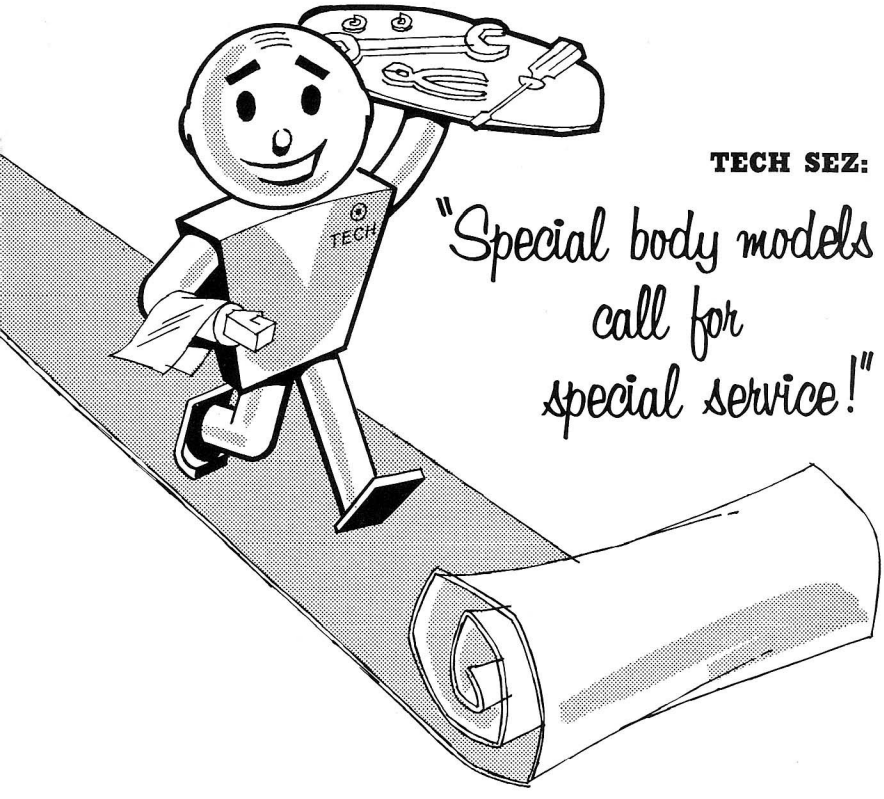


TECH SEZ:

"Special body models call for special service!"

Owners of suburban or station wagon models, and convertible models, bought these body styles because of certain special features. Naturally, they expect all technicians to be able to service those special features if the need ever arises.

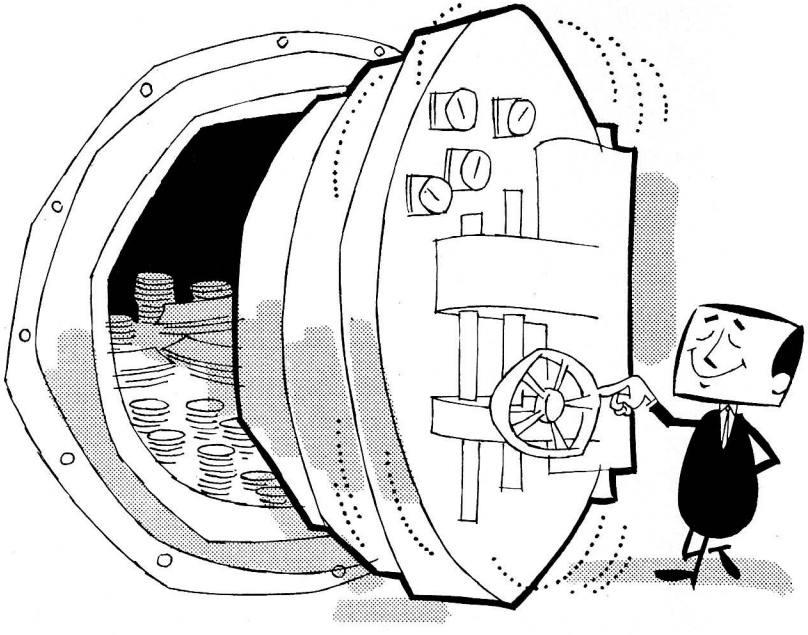
This reference book covers some of the special body service that these models require. You'll find tips on aligning the suburban tailgate, the tailgate glass, adjusting the latch mechanisms and the seats, along with some useful sealing suggestions on convertibles.

Here's where to look for this new and important service information:

SUBURBAN TAILGATE SERVICE

General

There are four basic points every suburban tailgate must meet if it is to be satisfactory to the owner. The gate must fit properly in the opening; must open and close easily; must seal against the entrance of dust and water; and the glass must run up and down easily.

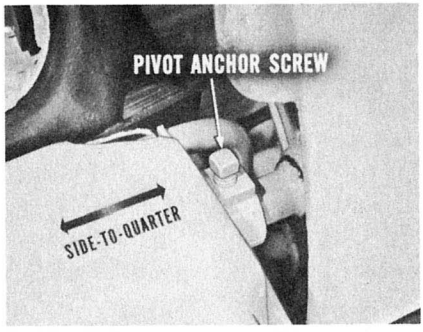


Ample adjusting points are provided to enable a technician to make whatever adjustments may be necessary in order to achieve proper fit and operation of the tailgate.

Tailgate adjustments

The fit of the tailgate in the opening, plus its ability to seal against the entrance of dust and water are related conditions which go hand in hand—a properly fitted tailgate will also be dust- and waterproof.

Pivot Pin Anchor Adjustment. A visual inspection will quickly indicate which way the tailgate should be moved to improve the fit in the opening. For example, there must be equal spacing between the sides of the gate and the quarter panels. If there isn't, loosen the pivot pin anchor screws located in the tailgate hinge bushings. Shift the tailgate to the right or left, as required, to equalize the spacing. Then tighten the screws.

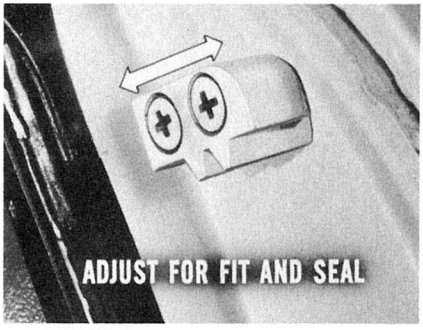


Hinge Pivot Plate Adjustment. Up-and-down movement of the tailgate, as well as in-and-out movement at the bottom are controlled by the hinge pivot plate mounting. The vertical position of the gate should be such as to allow about ⅛-inch clearance between the upper corners of the gate and the quarter panel opening at the belt line.

If it is necessary to loosen the hinge pivot plate mounting screws to make an adjustment, be sure to loosen the strikers also. If they are not loosened, the strikers will pull the gate back into the old position before the screws can be tightened. Shift the gate up or down, as required, to obtain the proper vertical position. Keep in mind that the spacing at the upper corners is more important to good sealing than getting an exact alignment of the tailgate belt line with the quarter panel belt line. Then tighten the strikers to hold the vertical position.

If the gate needs moving in or out at the bottom, be sure the hinge pivot plate mounting screws are loosened slightly, but keep them tight enough so they will hold the vertical adjustment. Then tap the plates in or out to get a flush fit of the gate panel with the quarter panels. Tighten the screws.

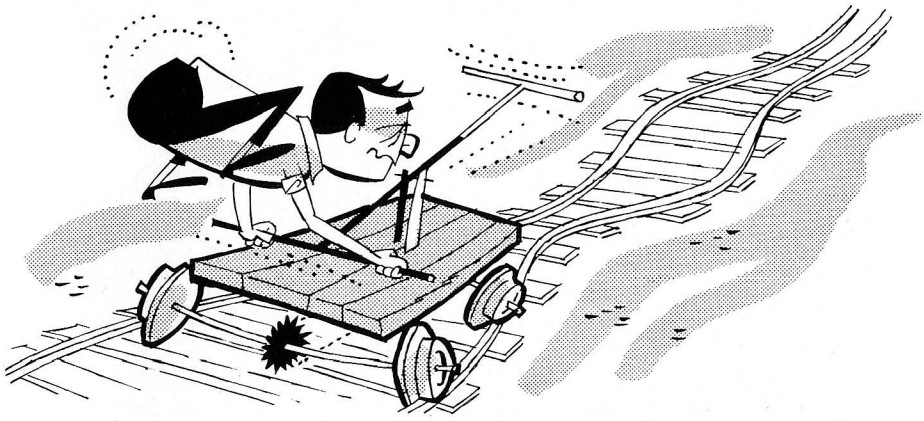
Striker Plate Adjustment. Adjust the strikers for flush fit of the upper part of the tailgate panel with the quarter panels, and for a tight seal against the weatherstrip. Avoid moving the strikers in too far because the gate will bounce back without latching. Said another way, move the strikers in far enough to get the required fit and still get consistent latch engagement. After making the adjustment, check it by closing and opening the gate several times. Note whether the tailgate latches each time it is closed, and releases easily when operating the latch handle. You may need to move the strikers more than once. If necessary, you can add or remove shims behind the strikers to improve rotor engagement.



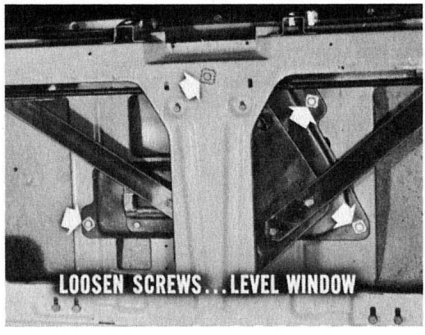
Tailgate glass alignment

Proper alignment and easy operation of the glass in the tailgate depends upon the position of the glass regulator and the alignment of the run channels.

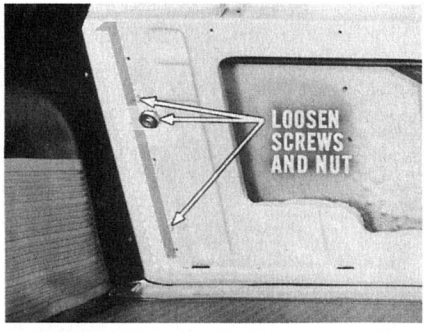
Regulator Adjustment. Here again a visual inspection will indicate whether the window regulator is holding the glass in proper alignment with the body roof rail. Raise the glass to within about a half-inch of the top, and observe whether the distance between the roof rail and each upper corner of the glass is the same. If it isn't, the glass will be hard to raise or lower because it will tend to dig into the channels.



If it is necessary to adjust the position of the glass, remove the gate cover panel, the garnish molding and the paper watershield. Loosen the four regulator plate mounting screws and shift the regulator as required to equalize the spacing between the top of the glass and the roof rail. Then tighten the mounting screws.



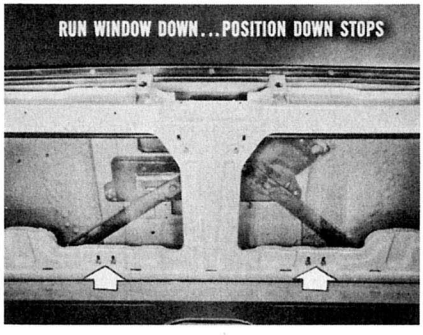
Run Channel Adjustment. The easiest way to align the tailgate run channels with the body run channels is to use the glass as an alignment fixture. So, loosen the run channel attaching screws at the top and bottom. Close the tailgate. Raise the glass to within about a half-inch of the top, and this will align the upper ends of the gate channels with the run channels in the body opening. Turn the sleeve nuts counterclockwise until the boss of



each nut is against the inside of the inner panel. Then hold the sleeve nuts and tighten the lock nuts.

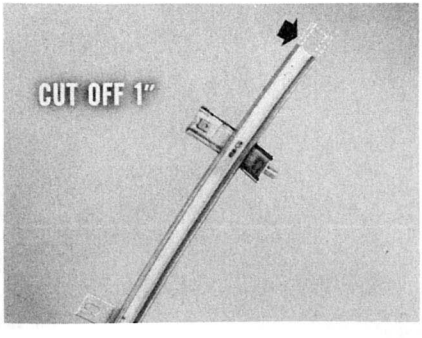
Lower the glass about half way, and this will align the lower ends of the run channels. Tighten the lower run channel screws, to hold the channels in their proper positions.

Finally, open the gate and tighten the two side screws at the upper ends of the run channels. Close the gate and operate the glass up and down several times to be satisfied that it runs freely.



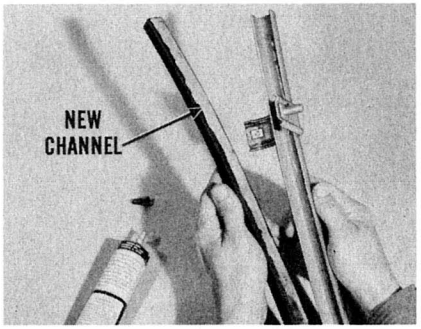
Loosen the lower stop screws near the bottom of the gate. Lower the glass until the top of the frame is even with, or slightly lower than the top of the tailgate outer panel. Hold the stops against the glass frame, and tighten the screws to limit the downward travel of the glass.

Run Channel Modification. On some early production models the upper ends of the glass run metal channels may not allow enough forward movement to align with the body channels. In a case like this, remove the glass assembly and both glass run channels.



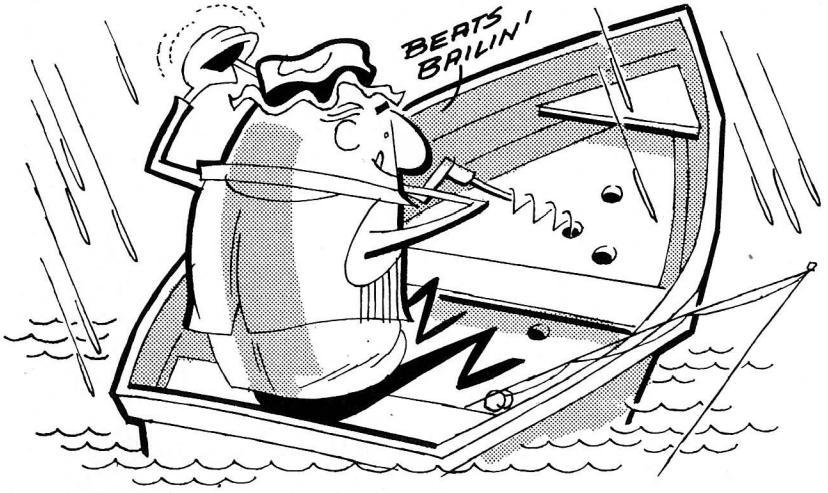
Cut or grind off the staple that holds the glass run rubber channel and remove the rubber. Rework both metal channels by cutting about 1″ off the top. This will eliminate interference and provide extra fore-or-aft adjustment.

Install new glass run rubber channels (Part No. 1961556) into the metal channels. Let the upper end of the rubber channel extend above the end of the metal channel a distance equal to the amount cut off the metal channel. Use a two-coat cement application to secure the new rubber glass runs. Reinstall the reworked channel assemblies in the tailgate.

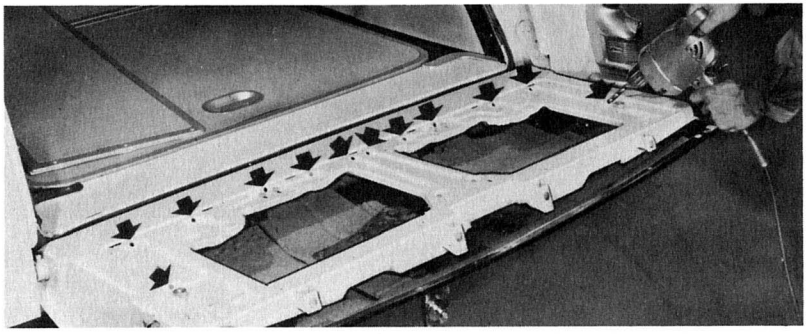


Tailgate assembly tips

Drain Holes. The paper watershield removed from the tailgate when it was disassembled is not to be reinstalled. Instead, there is a new seal or gasket that is to be cemented to the inner panel cover. Therefore, it is necessary to drill some drain holes in the inner panel to drain off the water that runs past the glass. Without drain holes, that water would be trapped between the inner panel and the cover.



Since the glass is out of the tailgate in order to permit modification of the run channels, this is a good time to drill the drain holes. If the glass had not been removed, the drain holes could be drilled by first running the glass all the way up.

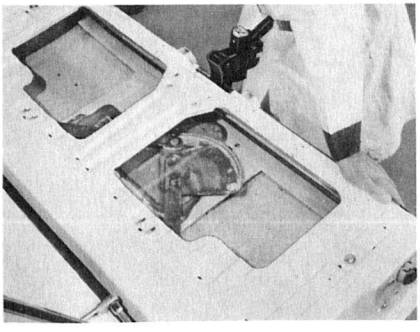


Use a sharp center punch to mark the drain hole locations and to assist in starting the drill. Drill twelve $\frac{5}{16}$" holes in the locations shown in the accompanying illustration. These holes must be drilled *in the convex radius of each panel depression* to insure proper drainage.

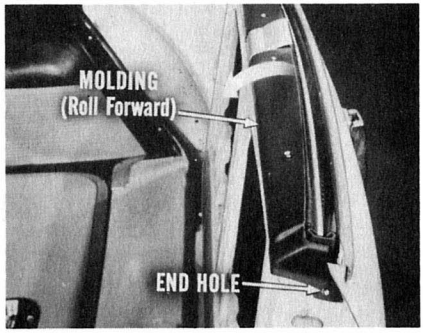
Lubrication. Before installing the glass, be sure the regulator and the latch linkage is properly lubricated. This is necessary to easy latch and glass operation.

Then install the glass and regulator assembly.

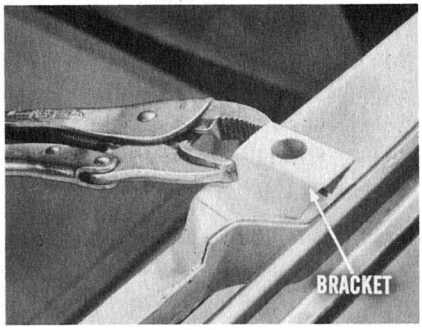
Inner Panel Interference. Sometimes the inner panel may become bent toward the glass so it interferes with the operation of the glass. If that condition is present, remove the glass. With the gate wide open, slip the lifting tongue of a bumper jack under the edge of the inner panel. Push downward on the tailgate, to bend the inner panel back into position where it will allow ample clearance for the operation of the glass. Reinstall the glass.



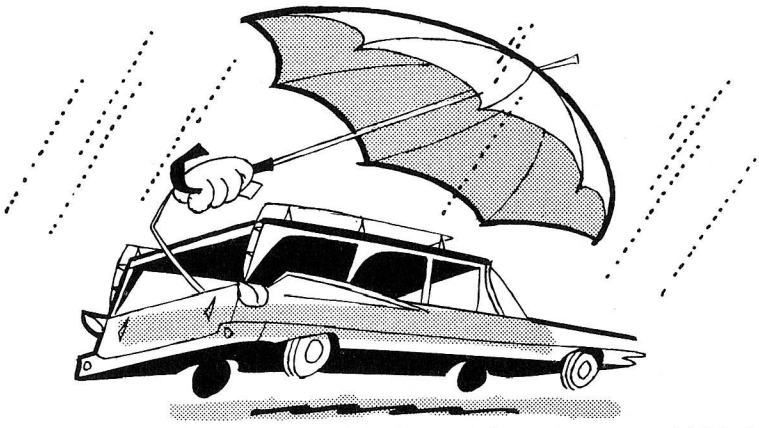
Garnish Molding Interference. There may be instances in which the garnish molding interferes with easy operation of the glass. In that case, loosen the four screws in the top of the molding, and remove the end screws. Roll the molding forward to eliminate the interference. It may be necessary to drill new holes for the end screws. Install and tighten the end screws, and then tighten the four top screws.



If the garnish molding pulls back against the glass when the top screws are tightened, bend the forward parts of the molding locating brackets. This will increase the forward slope of the brackets, and tend to prevent the molding from moving back against the glass. In extreme cases it may be necessary to break the bracket welds, move the brackets forward, and relocate them with metal screws.



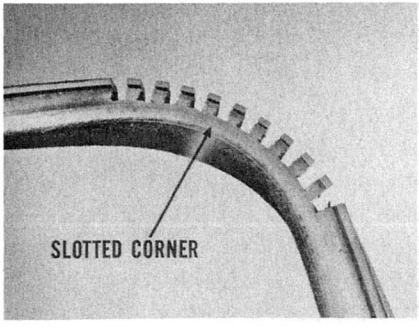
When the garnish molding is installed, lay a bead of sealer inside the ends. Extend the sealer around the ends, and for a distance of three or four inches toward the center. If the ends are not sealed, water might enter at the upper corners of the tailgate, run under the garnish molding and trickle down over the cover panel.



Cover Panel Gasket or Seal. In place of the paper watershield there is a new seal or gasket. If the tailgate is disassembled for any reason, destroy the paper watershield and install the new gasket, Part No. 2241219, on the tailgate cover before it is reinstalled. This, with the drain holes previously mentioned drilled in the inner panel, makes the cover an effective watershield.

Final Test of Operation. After the tailgate has been assembled, operate the glass up and down several times to be sure it moves freely. If the glass seems to bind in the body run channel, run your finger up and down inside the channel to check for tight spots. If the run channel has been pinched, use a fiber block to spread it to eliminate the interference. However, if the channel is damaged it would be well to install a new one.

Install New Body Run Channel. There is a new body run channel which should be used for replacement of the original channel. The new channel, Part No. 1961555, can be identified by the wide cuts at the upper corners. The original channel had narrow slits or knife cuts at the corners. The wide cuts insure a good fit of the channel in the corners.



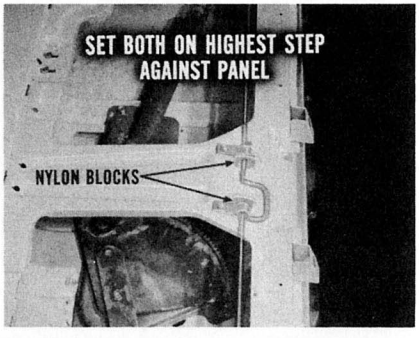
When installing the new channel, be sure it is centered so the ends extend equally from the body and form a good seal at the upper corners of the tailgate. Cement the lower seven or eight inches of the run channel to the body opening.

TAILGATE LATCH AND LINKAGE SERVICE

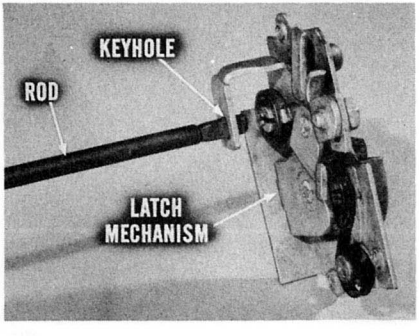
Whenever the tailgate lock doesn't work properly, it's usually due to a maladjustment, interference with the linkage, or a remote control rod out of engagement with the latch assembly. To correct these conditions, you'll have to remove the cover panel, garnish molding, and paper watershield to get at the lock and linkage assembly.

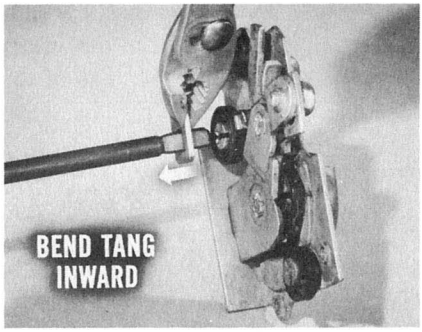
Look first for signs of interference between the remote control rod and inner panel.

Nylon block bearings that are drilled slightly off-center serve as bearings and also as insulators between the rods and the panel. Set both nylon blocks on their highest step. If they are set on different steps, they'll have different torsion effects on the control rods.



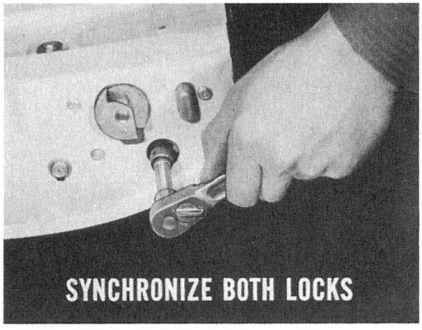
Next thing to do is inspect the remote control rod engagement in the keyholes in both latch mechanisms. Under severe use the rods may jump out of keyholes. If this happens, the rotor may freewheel, or the lock may stay locked.

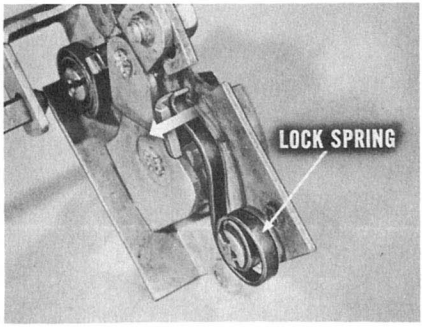




To guard against control rod disengagement, bend the tangs on both latch mechanisms inward (toward the tailgate center). Then, check control rod operation to see that rod ends will stay in place.

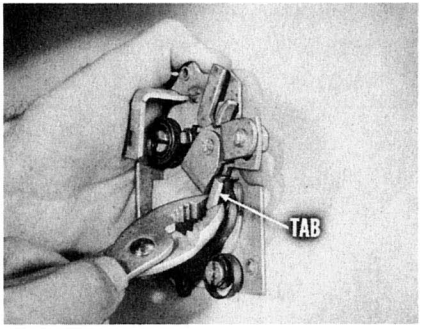
After correcting interference and control rod action, inspect the action of both locks to see that both rotors release at the same time. This can be adjusted, if necessary, by an adjusting screw reached by removing a rubber plug in the end of the tailgate. Adjust the action to take up the lost motion in the lock levers so both rotors will release at the same time.





Here's another condition that may occur. The lock spring, shaped like a monkey tail, that holds the take-up on the latch might jump off its pad if the owner forces the latch handle open too severely. If this ever happens, remove both latch assemblies.

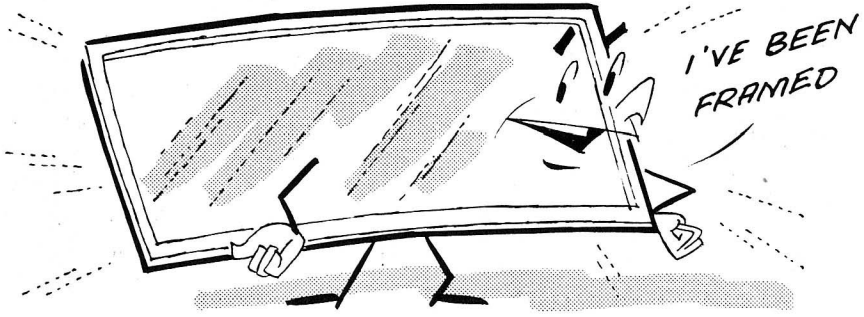
Turn the rotor to take up all the free play. Then, bend the tab so it will hold the lock spring more securely in position.



Lubricate both latch assemblies with the recommended lubricant. Reinstall them and adjust them to synchronize their locking action. As a final check on operation, close and open the gate several times. If the tailgate works easily and locks securely, you've done a good job.

BONDED GLASS

Keep in mind that the tailgate glass on all suburban models is bonded to the window frame. It's available as an assembly through Chryco and MoPar. Side windows on all new two- and four-door hardtops and convertibles (except Imperials) are also made of bonded glass.

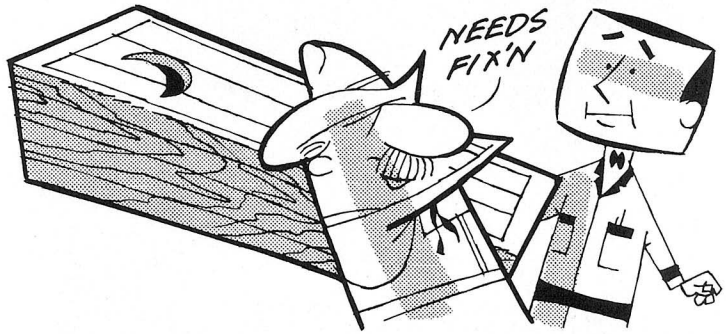


Rear doors on four-door Imperial sedans use bonded glass. And, bonded glass is used on side vents on all 1959 and 1960 models, except on Dodge trucks. It has these particular advantages:

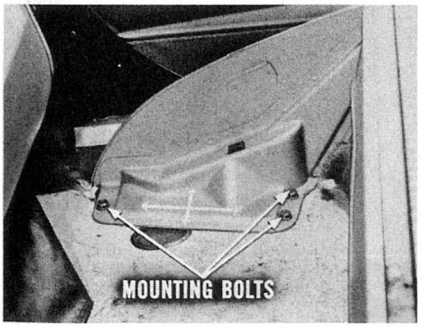
—better styling, thinner window frames improve appearance.
—easier and quicker to install than conventional windows. Each custom-fitted unit has the necessary hardware attached to the frame.
—more structurally sound, less vibration and free play.
—leakage problems are held to a minimum when installation instructions are followed.

So, wherever bonded glass is specified, install it. It offers many advantages to you and assures greater owner satisfaction with your glass replacement work.

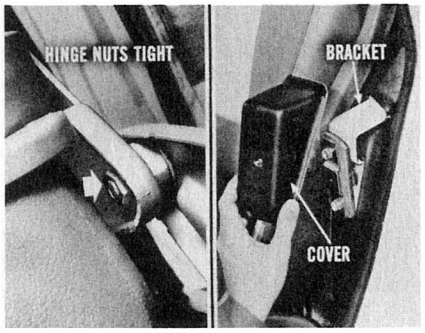
SUBURBAN SEAT SERVICE



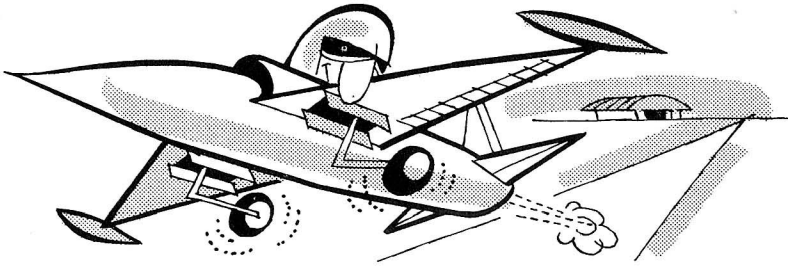
There may be cases when a suburban second seat, or the seat back, may need adjustment. Let's take an example. If the seat cushion is out of line, fold the seat forward. Then, pick up the floor mat and loosen the three seat frame mounting bolts on each side. Move the seat as required to square it with the body so the legs will contact the shelf angle with the cushion in place.



Make sure the hinge nuts are tightened securely. The seat back hinge pivots are mounted on inner wheelhouse brackets that have a serrated top portion. Remove the one crosshead screw that holds the molded cover concealing this bracket. Then, loosen the bolts to raise or lower the seat back as required, to provide an even floor joint when the seat back is folded forward.



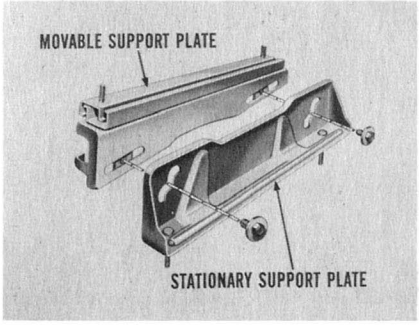
Second Seat Legs Block Entrance. There may be reports that the legs on the second seat fail to fold back properly, and block the passenger entrance. This can happen if there's interference between the cushion panel and floor mat over the drive shaft tunnel. This will make the seat sit too high for the legs to kick back and nest properly. In a case like this, push the seat cushion forward. Fold the floor mat forward, too. Use a scissors to remove the jute padding where the seat compresses it against the drive shaft tunnel. The cushion will then sit lower and the legs will fold back to the sides of the seat back.



Third Seat Adjustment. On three-seat suburbans, the third seat back and cushion also have adjustable mountings and supports. By loosening the bolts, you can move the mountings to get a more level cargo-carrying surface whenever required.

Manual Front Seat Adjustment. All 1960 models except Valiant, with manual front seats, have a new custom-positioning, six-way adjustment feature. Once you learn how an owner wants the front seat adjusted, you should tailor it to his personal preference.

Each seat track ramp is mounted on a six-way slotted base. Each base has a movable support plate connected to the seat track, and a stationary support plate securely attached to the floor. Horizontal slots in the movable plate permit forward-or-rearward adjustment. Two curved, vertical slots in the stationary plate permit raising or lowering to one of three positions, or tilting the seat to any one of four angles.



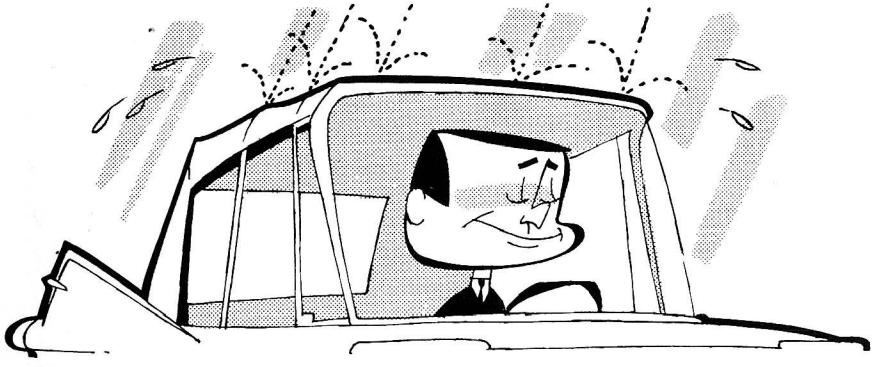
Just loosen the adjusting bolts enough to permit free movement. Move both sides of the seat at the same time—and equally—then, retighten the bolts securely to hold the custom-fitted adjustment.

In addition, the two-way seat adjustment handle at the left can still be used by the driver for the usual adjustments.

CONVERTIBLE SEALING TIPS

General

Water leaks at the top of the windshield of convertible models can be caused by incorrect alignment of the top header with the windshield header, or by inadequate sealing in this area.

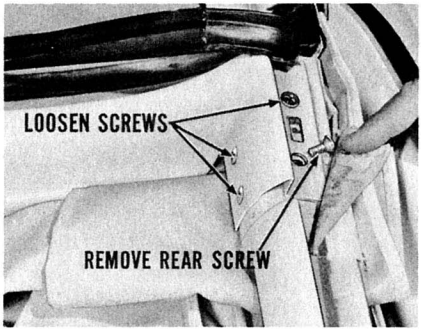


Top header alignment and adjustment

The first point to check, if there is a water leak at the top of the windshield, is the alignment of the top header with respect to the windshield header. The clearance between these two headers should be fairly uniform across the entire width of the windshield. If the top header is too far forward there will be interference between the top header and the windshield header when the top is latched. The top header weatherstrip won't be compressed enough to form a good seal, and latching effort will be objectionably high.

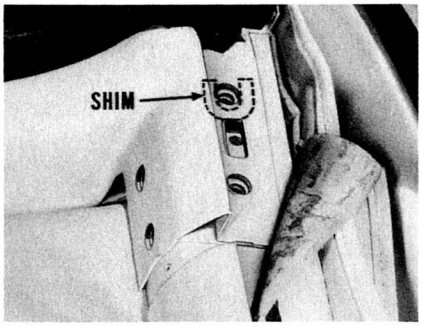
If it is necessary to re-position either side of the folding top header, remove the door glass weatherstrip and retainer from the roof rail to

gain access to the four header-to-roof-rail attaching screws. Remove the rear screw from the underside of the roof rail, and loosen the other three screws. Adjust the top header to eliminate interference, and to obtain good top header-to-windshield-header alignment. Enlarge the rear screw hole and install and tighten the rear screw. Next, tighten the forward screw. *The two side screws should be tightened last.*



In some cases, re-positioning the top header may upset the fit of the top covering material. If this happens, adjust the forward top bow to remove any looseness of the top material.

Lay a bead of sealer along the entire length of the roof rail weatherstrip retainer before you install it. This is good insurance against water leakage between the weatherstrip retainer and the roof rail. If there is any gap between the forward end of the roof rail weatherstrip retainer and the rubber header weatherstrip, fill it with sealer to prevent leakage above the vent wing.



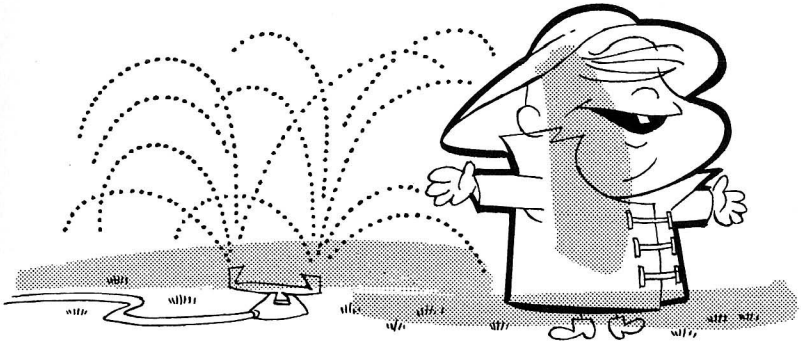
NOTE: In some cases it may be necessary to rotate the leading edge of the top header downward to improve sealing . . . particularly at the outer ends of the header. The top header can be rotated by inserting a spacer approximately ⅛" thick between the side rail and the windshield header at the forward screw. To install this spacer, remove the two screws from the underside of the roof rail, and loosen the two side screws.

Insert the spacer between the header and the roof rail, and slide it all the way forward until it lines up with the *forward screw hole*. Align the top header and tighten all four screws. Tighten the two screws under the roof rail first, then the two side screws.

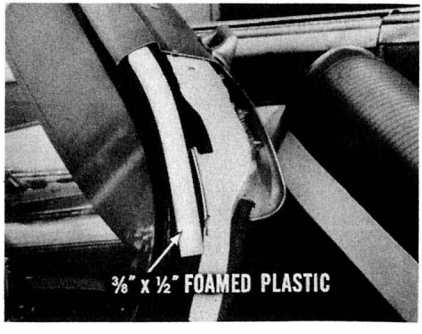
Windshield header leak

Use a hose with the stream of water directed upward toward the windshield header to test for a leak under the header. If water gets by the header, it will show up along the windshield header molding on the inside of the car. The fastest and easiest way to correct a windshield header leak is to wipe sealer between the front edge of the header molding and the windshield glass weatherstrip.

NOTE: Ineffective sealing of the windshield glass to weatherstrip can also be the cause of a leak in the header area.



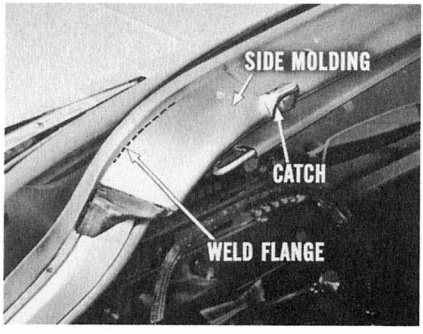
In time this sealer may dry out and the leak might reoccur. A more permanent correction, therefore, is to remove the moldings and cement a strip of ⅜″ x ½″ closed-cell, foamed plastic along the top of the windshield weatherstrip.



Leak at lap joints

The inner end of the side molding should butt against the top catch and fit tightly against the windshield header molding.

If it doesn't, the butt-weld flange under the molding at the upper end of the windshield pillar may be causing interference. Improperly positioned side moldings tend to make the windshield header too wide to fit the top header. This causes the top header to hit hard at the corners and results in high latching effort. If this is the case, remove the side molding, and grind off the weld joint until you do get a good windshield side molding fit.



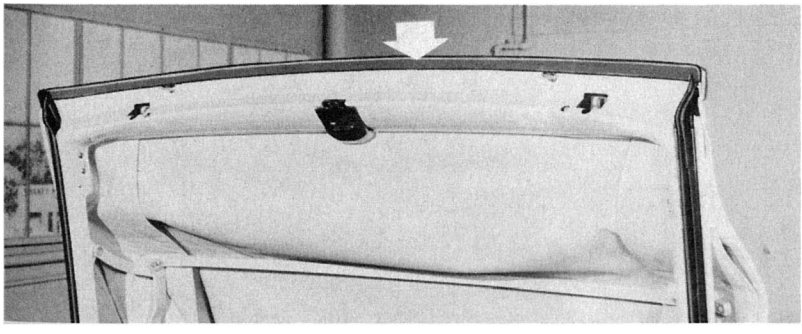
If the inner end of the side molding doesn't fit down tight against the header molding, don't fill the lap joint gap with sealer. A gap between the two moldings at the lap joint results in a step-off that is too great to be sealed effectively by the top header weatherstrip. If the gap at the lap joint has already been filled with sealer, remove the side moldings and clean off all the old sealer. To insure a good fit at the lap joint, drill a hole about ½" from the inner end of the side molding, and in line with the other screws. Install a sheet metal screw. The additional screw will reduce the step-off condition between the outside side molding and upper windshield header molding. If necessary, rework the end of the side molding to reduce the step-off by reforming the fillet after installing the additional metal screw. After the lap joint gap is eliminated, wipe sealer into the joint.

New top header weatherstrips

New top header *center* weatherstrip and two new top header *end* weatherstrips have replaced the earlier production, one-piece weatherstrip. The new top header weatherstrip is a closed-cell, molded, contour-conforming type having a longer and more effective sealing lip. This new weatherstrip conforms readily to irregularities along the windshield header, and does an excellent job of sealing. It has the added advantage of reducing latching effort. Here are the part names and numbers of the new weatherstrips:

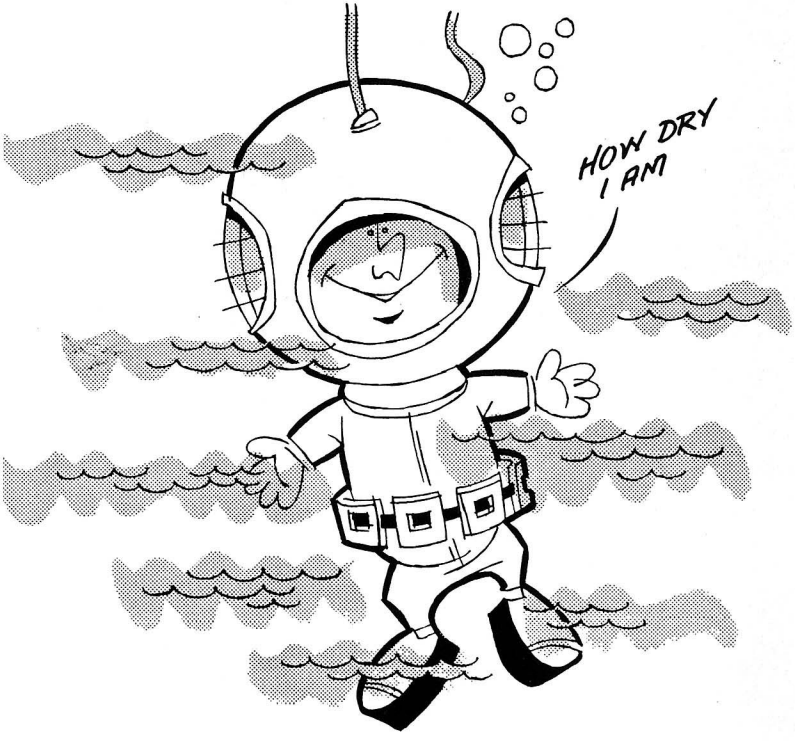
Folding Top Header Weatherstrip, Center—2166958
Folding Top Header Weatherstrip, Right End—2166960
Folding Top Header Weatherstrip, Left End—2166961

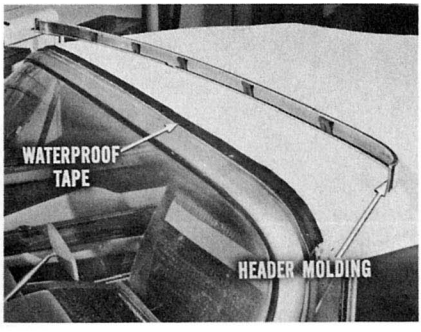
The top header molding must be removed in order to install the new top header weatherstrips. Remove *all* of the old top header weatherstrip and the two seals at the top guide pin holes. Clean the entire top header area to insure a good cementing job. Mark the location of all the top molding screw holes so that they will be easy to locate after the new weatherstrip is installed.



Coat the entire length of the top header with weatherstrip cement in the area to be covered by the new weatherstrip. Clean all powder from the weatherstrip, and apply cement to its cementing surface. Allow the cement on the header and the weatherstrip to dry until tacky, then press the weatherstrip firmly into place. Make sure the

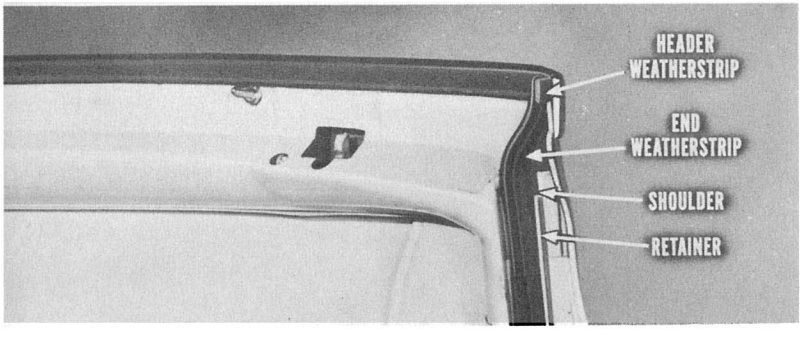
slot in the weatherstrip fits over the flange at the forward edge of the top header.





Apply cement to the top fabric and to the top surface of the weatherstrip. Then install the 1¼″ x 62″ strip of waterproof tape. Be sure to cover all the staples and tabs so there is a waterproof bridge from top material to header weatherstrip, to provide a good seal.

The new top header weatherstrip conceals the top molding screw holes. So use the marks you put on the underside of the header to locate them. Carefully lift the new weatherstrip at each hole location and use a sharp probe to puncture the waterproof tape on the upper side of the header so that the molding screws can be installed. Position the top header molding, and install the molding attaching screws. Re-cement the weatherstrip at each screw location.



Cement the two new end weatherstrips in the forward ends of the roof rail weatherstrip retainer. Be sure the locating shoulder of the new weatherstrip fits against the end of the roof rail retainer. It may be necessary to trim the rear end of the new weatherstrip to get a good fit at this point. When properly positioned, the forward end of the new weatherstrip will overlap the outer end of the header weatherstrip. Use a two-coat cement application to insure a good bond between the end sections and the ends of the header section. If necessary, trim the ends of the header weatherstrip to obtain a neat job.

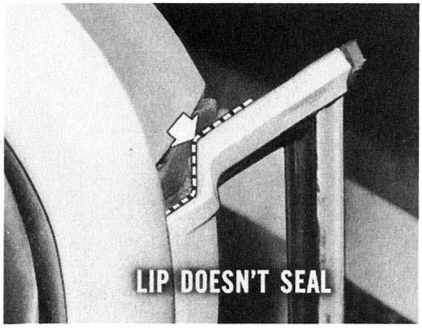
Leak under top molding

If the waterproof tape under the top molding is not cemented securely to the top fabric and the header weatherstrip, water may get into the header and leak out the top latches or at the junction of the top header and the roof rail. Test for a leak past the waterproof tape by flowing water under the top molding from rear to front. If there is a

leak at this point, remove the top molding and re-cement the waterproof tape. Make sure there is a continuous bond at both the header weatherstrip and the top fabric material. Also, be sure that the tape covers all staples and tabs.

Leak at vent wing seal

Get inside the car to inspect for a possible leak at the pillar-to-vent-wing seal. Latch the top down securely, close the door and see if you can see a pinhole of light anywhere along the top edge of the vent window frame.



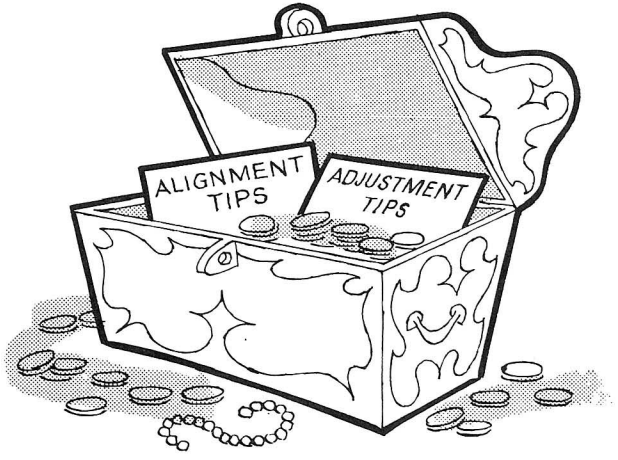
If you spot an opening, check the seal from outside the car. If there is a leak, you'll find that the sealing lip of the weatherstrip doesn't seal properly along the top edge of the vent frame. In some cases, water will get in where there is no visible evidence of a leak.

You may have to either shim or trim off the top of the seal to get a good sealing lip fit along the top edge of the vent frame. Incidentally, be sure to clean the area thoroughly with cement solvent to remove all the old sealer. Also, clean the seal to remove any powder on the exterior. Apply cement to the body pillar and the seal. Let it dry until tacky, then press the seal into place. In some cases you may have to install a new seal to stop a leak at the upper edge of the vent wing frame.

SUMMARY

Alignment and adjustment tips in this reference book will prove valuable whenever a suburban or convertible comes in for body service attention. They are based on the built-in adjustments provided along with several practical suggestions that have worked satisfactorily in the field.

With a little study and practice on your part, body service on these models should present no problem. You'll find it easier to keep suburban and convertible owners pleased with our products and more thoroughly sold on your service ability.



RECORD YOUR ANSWERS TO THESE QUESTIONS ON QUESTIONNAIRE NO. 152

When necessary, the tailgate can be moved fore, aft, up, or down by loosening the hinge pivot plate adjusting bolts. — RIGHT — 1 — WRONG

To level the tailgate window, close the gate and run the window up to within an inch of the roof rail, then loosen the four regulator plate screws and shift the regulator plate. — RIGHT — 2 — WRONG

Align the top part of the tailgate glass run channels first, then lower the window halfway down and align the lower part of the channels. — RIGHT — 3 — WRONG

Whenever you disassemble a tailgate, discard the paper watershield and replace it with a new cover panel gasket after you drill 12 drain holes. — RIGHT — 4 — WRONG

A bead of sealer at each corner under the garnish molding is added protection against leaks. — RIGHT — 5 — WRONG

Since the glass needs ample clearance at its gate opening, be sure the garnish molding or the inner panel don't interfere. — RIGHT — 6 — WRONG

When checking for lock operation, adjust both locks so the rotors release at the same time. — RIGHT — 7 — WRONG

If second seat legs block the entrance, remove jute padding over the drive shaft tunnel to improve seat leg nesting. — RIGHT — 8 — WRONG

Since 1960 models, except Valiant, with manual front seats have a new custom-positioning, six-way adjustment feature, always tailor the seat position to the owner's preference. — RIGHT — 9 — WRONG

To correct convertible header leaks, first check the top header to windshield header fit and correct it if necessary. — RIGHT — 10 — WRONG

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