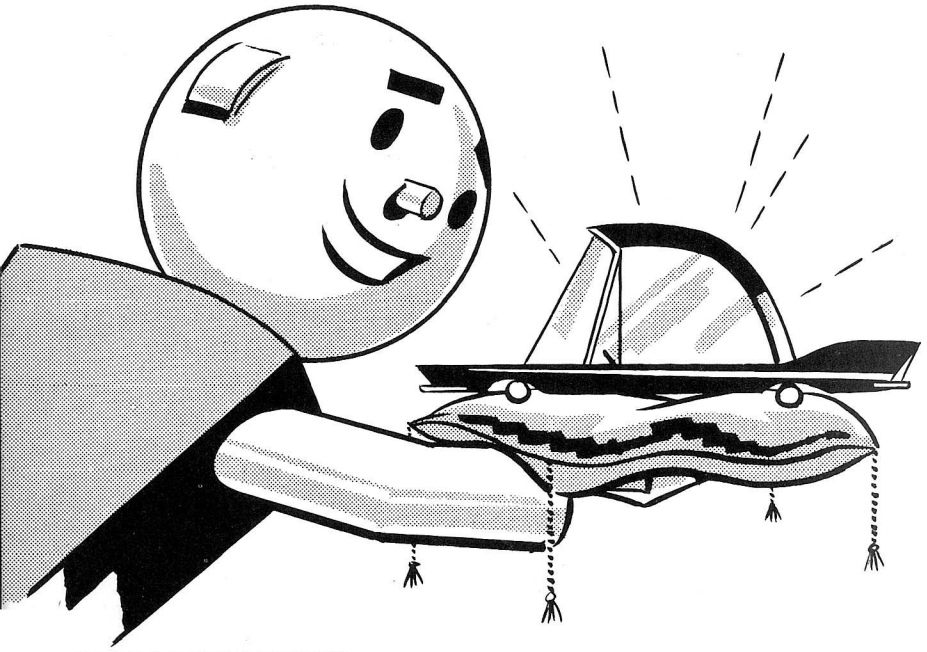
SERVICE REFERENCE BOOK SESSION 117

HARDTOP ADJUSTMENTS— WINDOWS and LOCKS

PREPARED BY CHRYSLER CORPORATION

PLYMOUTH • DODGE • DE SOTO • CHRYSLER • IMPERIAL



TECH SEZ:

"HARDTOPS CALL FOR 'EXTRA-SPECIAL' BODY SERVICE!"

Our hardtop models are the glamor leaders of the current style parade. Owners rave about their appearance, and take an equal amount of pride in their all-around performance.

But the prettiest car in the world loses a little luster when a window fit isn't quite right, or when a door opens and closes with some difficulty. Such a condition can cause quite a let-down to an owner.

So, when hardtop models come in for window and lock attention, roll out your "extra-special" body service techniques. It will help you win increased favor with this particular group of owners.

These "extra-special" service tips are on the following pages:

INTRODUCTION

When an owner brings his car in for door window service it is either to improve the appearance of the car, to make the doors open and close easily, or to correct a water leak. There's a close relationship between these three conditions, and often correcting one will automatically correct the others.

Regardless of the fact that the owner may mention that he wants the windows adjusted, you *always* check the fit of the doors first. Window adjustments alone won't be enough if the doors are out of line, or if the door openings aren't squared up.

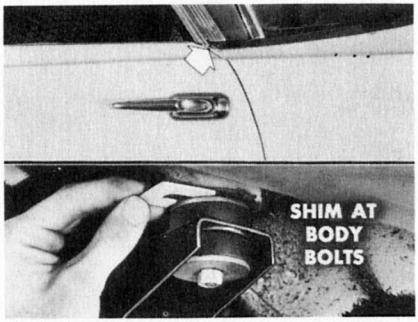
Door Adjustments. Start your door adjustment with a visual check of its appearance. Spacing around each door should be as even as you can possibly get it. In other words, center the door in the opening as well as you possibly can. Then, open and close the door to see that it operates freely—opens without having to yank it, and closes without having to slam it. And, see that it fits flush with the adjacent body panel.

Always start door adjustments on 4-door hardtop models with the *rear* door. That's because you cannot shift the rear quarter

panel, but you *can* shift the front fender if necessary. Therefore, working from the rear toward the front lets you end up with a panel that is adjustable, so you can compensate for the spacing you may have accumulated, or may need, because of the other adjustments.

Usually, the built-in adjustments provided by the hinge mounting are enough to permit proper alignment of the door. By loosening the hinge mounting screws you can move the door in, out, up, down, fore or aft. Then, when you tighten the mounting screws, you may have to adjust the striker to get a very slight lift of the door as it rides over the striker.

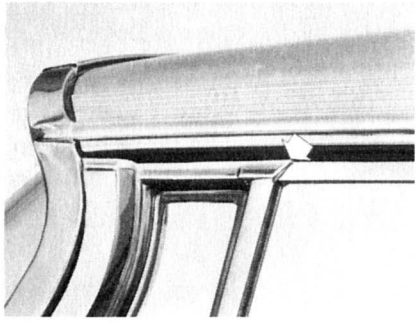
After adjusting the door, be sure there is clearance and proper alignment at the upper rear corner of the rear door and the quarter panel. If there is interference at this point it may be necessary to install shims at the No. 3 or No. 4 body bolt to square up the door opening so the door will fit properly. If so, you may have to go back and readjust the hinge mountings, to work out the best combination that will result in the best appearance as well as the best fit. And, finally, check the chrome molding alignment on the door and quarter panel. If the molding is out of line, tap it gently up or down, using a block of wood and a hammer.



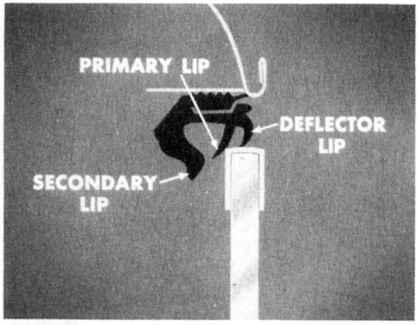
WINDOW ADJUSTMENTS— 4-DOOR HARDTOP

Adjusting the Vent Window Frame. If the windows need adjustment, start with the front vent frame and work toward the rear. Run the window up and down to check for binding. That tells you if the window roller tracks have to be adjusted.

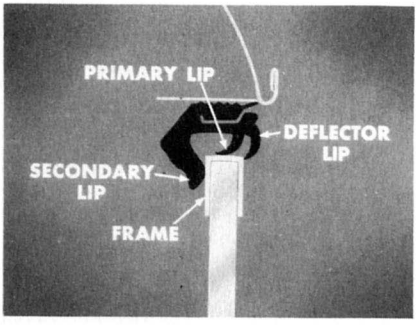
Next, check for even spacing at the upper rear corner of the vent wing frame. There shouldn't be any gap, overlap, or step at that point.



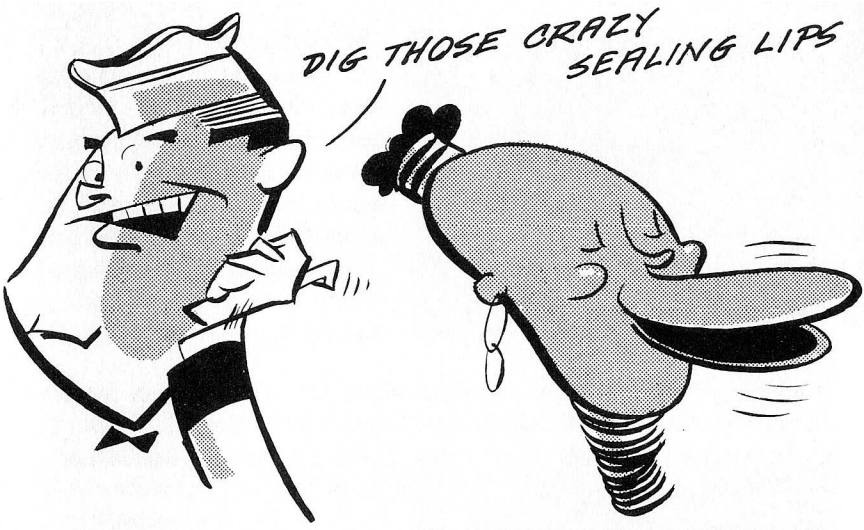
Open and close the doors to see how the upper edge of the window frame seals at the header weatherstrip. Be sure the door glass seats against the weatherstrip without binding, so the door will open and close freely. This is mighty important.



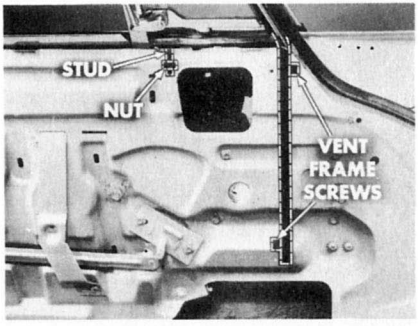
You'll notice that the weatherstrip over the window has three sealing lips: there's a short outside deflector lip, a primary lip, and a secondary lip which also serves as a stop for the window.



As the door closes, the frame should just clear the deflector lip, but curl back the primary lip and rest against the secondary lip when the door is fully closed. The deflector lip should slope outward and cover the outside edge of the frame.



Now, if a window needs to be shifted to improve its fit, you'd remove the hardware and the trim panel. Two screws hold the front vent frame brace to the door. A single stud and nut hold the frame to the upper edge of the door. The lower end of the division channel has two attaching screws.

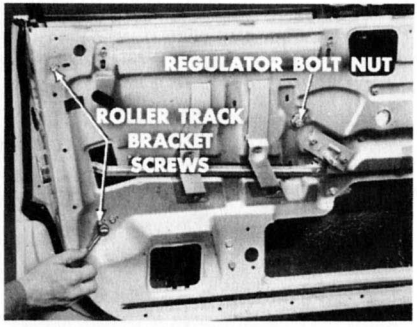


On all models except Imperials, you can remove a rubber plug at the upper end of the front face of the door and loosen the frame screw. You can reach through the access hole in the panel and loosen the second frame screw. Also, loosen the frame stud nut through the access hole, and the adjusting screws at the division channel's lower end.

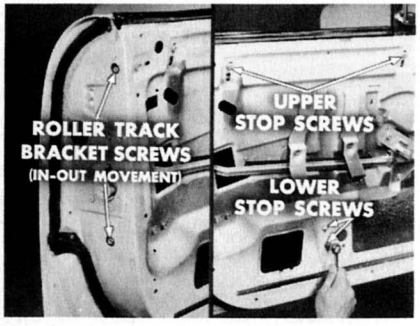
With those adjusting points loosened, you can move the vent frame toward the windshield pillar by adding shims at the stud until

the vent frame makes a good seal with the pillar. In addition, tilt the frame in for better contact at the header weatherstrip. Tighten the frame screws and stud nut next. Finally, tighten the division channel lower adjusting screws just enough to take up the clearance.

Adjusting the Front Door Window. After adjusting the vent window frame you may have to adjust the front window. You can move the front window in, out, fore, and aft. There are also adjustable upper and lower stops for up and down adjustment.



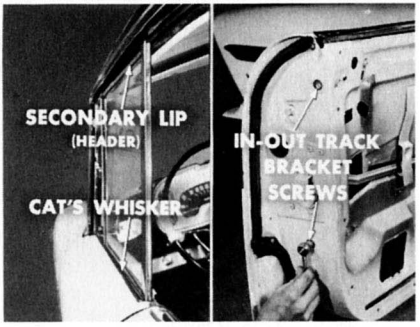
To take advantage of these adjustment possibilities, first loosen the regulator bolt nut and the roller track bracket screws that control fore-and-aft movement.



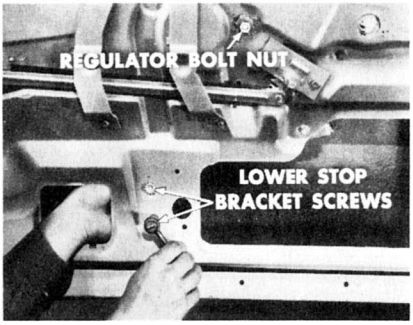
Also, remove two rubber plugs from the rear face of the door. Loosen the two roller track bracket screws that control in-and-out movement, and loosen the upper and lower stop screws.

Shift the window forward to line it up with the vent frame. Then, tighten the rear roller track fore-and-aft *upper* bracket screw to hold this adjustment.

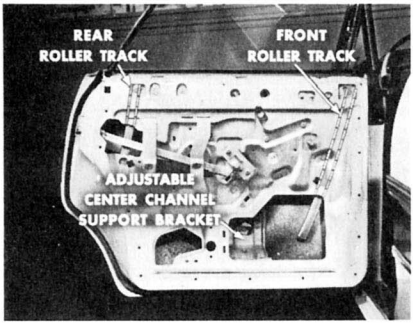
Lower the window next. Hold the roller track against the frame and tighten the roller track *lower* screws. After that, raise the window and tilt it so it makes contact with the cat's-whisker on the weatherstrip, and with the secondary lip on the header strip. Tighten the in-and-out track bracket screws to retain this adjustment. Then, reinstall the plugs in the door.



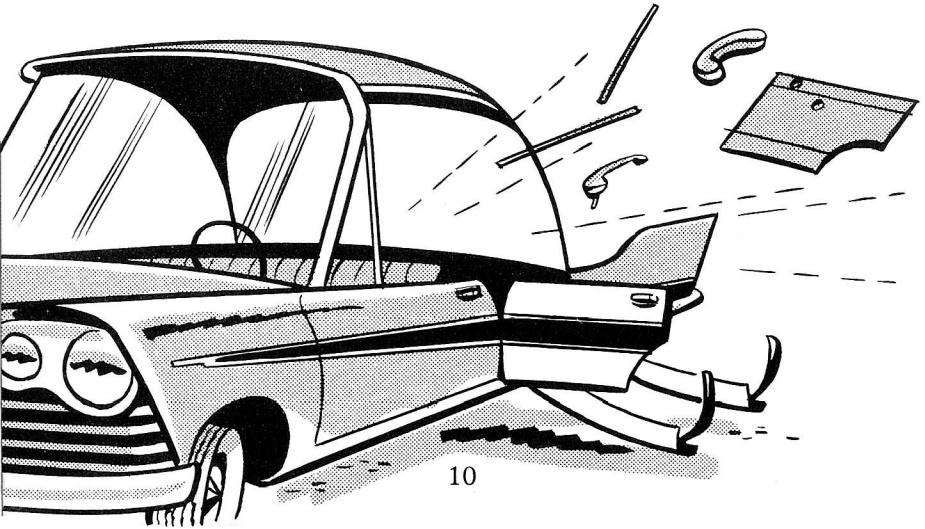
Raise the window as far as it will go for a good seal at the header. Then, adjust the upper stops to limit up-travel, and tighten the screws.



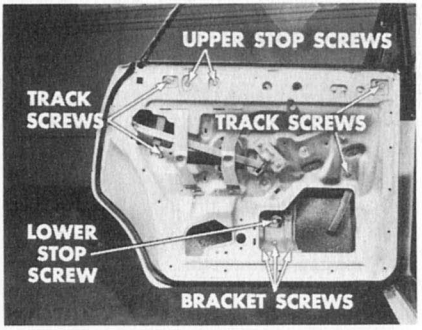
Lower the window again until the top edge is flush with the top of the door panel. Raise the lower stop bracket until it touches the window, and tighten both screws. Finally, tighten the regulator bolt nut.



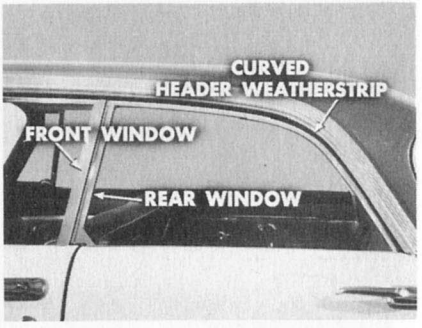
Adjusting the Rear Door Window. On all models except Imperials, you can shift the rear door window by means of movable front and rear window roller tracks, and an adjustable center channel support bracket. To get at these, naturally, you'd first remove the moldings, handles, armrests, and trim panel.



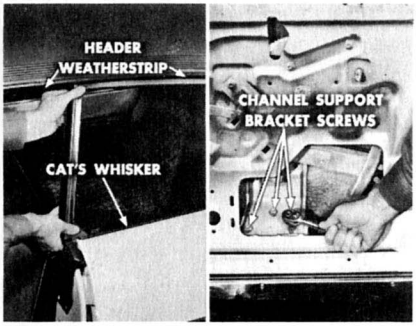
You then loosen the upper window roller track bracket screws, and the upper stop screws. Next, loosen the lower stop screw, the lower track bracket screws, and the center channel support bracket screws. Then, raise the window.



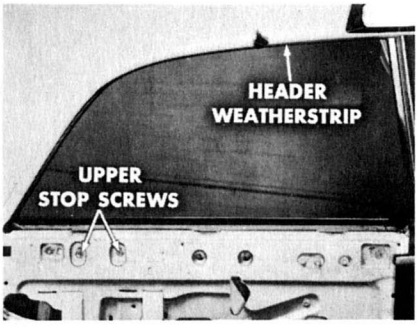
Line up the front edge of the rear window with the rear edge of the front window. Keep in mind, too, that the rear window must follow the curved header weatherstrip closely and seal well all along the top edge.



Move the window forward, if necessary, to line it up with the edge of the front window. Next, tighten the fore-and-aft window roller track upper bracket screws. Lower the rear window and shift the lower end of the roller track into contact with the frame. Then, tighten the window roller track lower screws.



With the door closed, raise the window. Tilt it outward to make contact with the weatherstrip cat's-whisker, and see that it makes a good seal at the header weatherstrip. Then, tighten the center channel support bracket screws.



While the rear window is all the way up, adjust the upper stop screws. Be sure, also, that there's no interference at the header weatherstrips, or the door will be too hard to open. Last, lower the window until it is flush with the top of the door and adjust the lower stop.

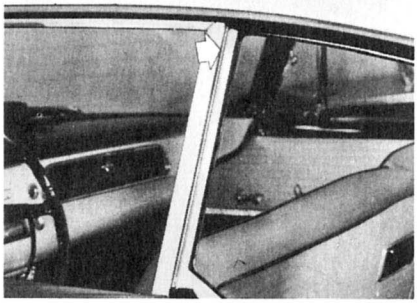
Before you reinstall the trim panels, armrests, hardware, and garnish moldings, it always pays to make a final check on door and window fit and operation. Do this at each door so you won't have to disassemble the trim again.

WINDOW ADJUSTMENTS— 2-DOOR HARDTOP

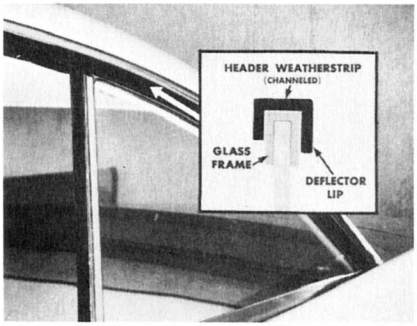
Basically, door and window adjustments on two-door models are made the same way as those on the four-door hardtops. You get a good door fit first, and then move the windows as required.

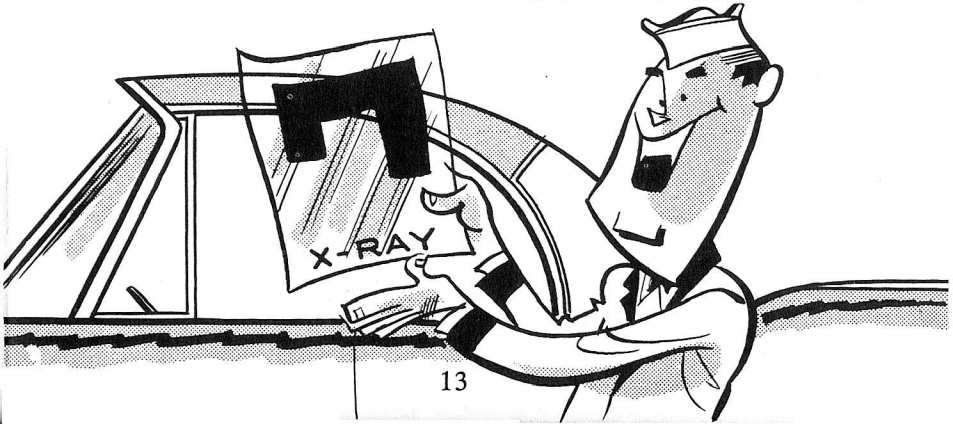
Line up the belt-line on the door with the quarter panel. Use the built-in hinge adjustments provided, to move the door in, out, up, down, fore, or aft to get the door fitted properly in the opening.

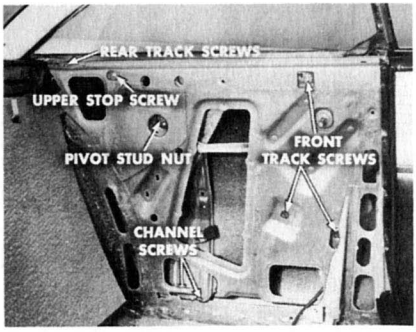
Adjusting the Quarter Window. With the door window properly adjusted, check to be sure there's no gap between the upper front corner of the quarter window and the front door window.



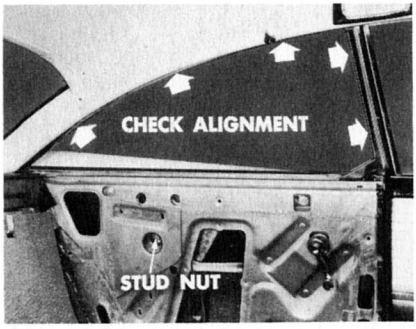
One important thing to keep in mind is that the header weatherstrip over the quarter window has a different cross-section. It is channeled, and the glass frame runs inside the channel instead of sealing against a lip, as at the door. A wide deflector lip overlaps the edge of the frame.



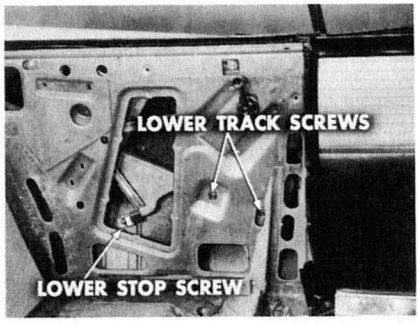




Here's how you'd go about adjusting the quarter window. First loosen the roller track bracket screws and the pivot stud nut. Loosen the two center channel support bracket screws, and the upper and lower stop screws.

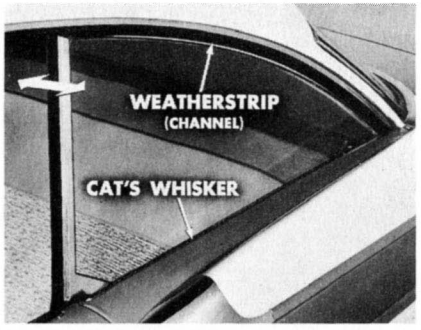


Raise the window. Check its alignment with the rear edge of the front door window. Shift the glass up or down to get even spacing, together with a good seal at the header weatherstrip. Then, tighten the roller track *upper* bracket screws and the pivot stud nut.

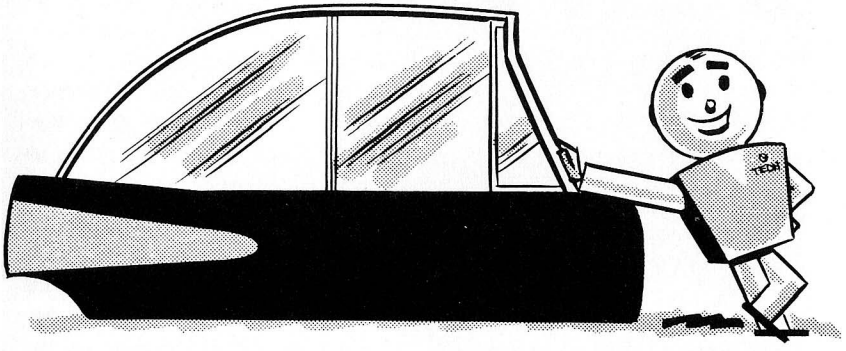


Following that, lower the window. Move the roller track in toward the glass frame for a good fore-or-aft adjustment. Tighten the roller track bracket *lower* screws to secure this position. Also, adjust and tighten the lower stop.

Next, raise the glass so you can check its fit in the weatherstrip all along the contour. Tilt the window to make good contact with the cat's-whisker strip, and be sure that the window frame is nicely centered in the channel. Finally, adjust the upper stops, and tighten the center channel support bracket screws.



WINDOW ADJUSTMENTS— IMPERIAL HARDTOP

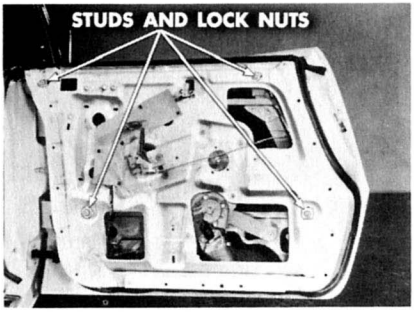


Door adjustments on the Imperial hardtop are made the same as those on all other hardtop models. Window adjustment is similar but the roller track bracket design is a little different, and the Imperial uses two different types.

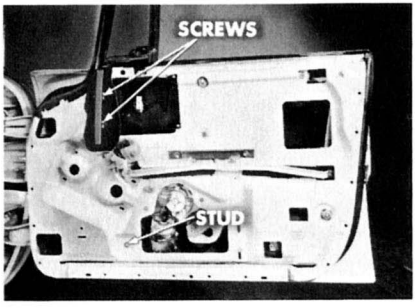
Adjustments—Front Door Window. Early Imperials featured cap screws through the inside panel to secure the fore-and-aft movement of the rear roller tracks, the same as on models just discussed. And, through an access hole, you can reach bolts and nuts to secure an in-and-out movement.

On later Imperial models the fore-and-aft and the in-and-out movements are controlled by screwdriver-slotted studs which project through the inner panel. The studs are held in position by lock nuts.

Adjusting Rear Door Window. The main difference between Imperial rear doors and the rear doors of other models is that the Imperial does not have a center channel support. Screwdriver-slotted studs secured by lock nuts extend through the inner panel. Loosen the lock nuts and slide the studs fore-and-aft in the slotted holes to obtain fore-and-aft positioning of the channels. Loosen the lock nuts and turn the slotted studs in or out to obtain the desired in-and-out adjustment.



Adjusting Front Door Window. The front door window rides up and down in the run channel of the front vent window frame. Therefore, the vent frame must be correctly positioned first, before the door window is adjusted. There is an adjusting stud at the lower end of the vent window division channel to permit in-and-out adjustment of the vent frame. Two clamp screws are used at the lower end of the front leg of the vent window frame. Therefore, to adjust the front door window you would have to position the vent window frame first by means of the adjustments mentioned, and then position the rear roller track by means of the slotted studs and lock nuts, just as the rear door window track is adjusted.



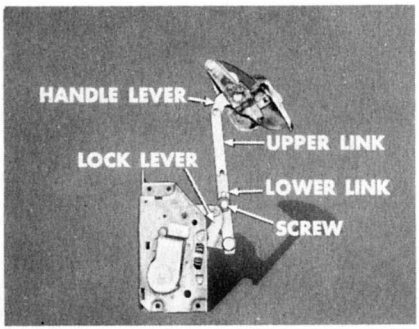
Adjusting Rear Quarter Window—Two-Door Hardtop. This window is adjusted the same as described for other models.

DOOR HANDLES AND LOCKS

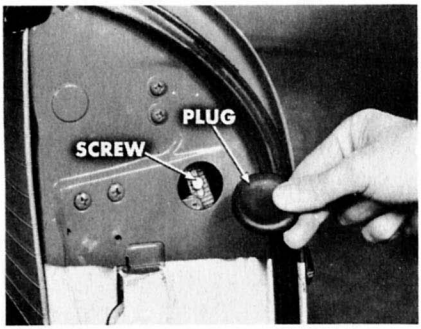
How easily doors open and close with respect to locks is also an important part of hardtop body service.

Recessed-Bar-Type Handle. On the recessed-bar-type handle, for instance, if you find it doesn't operate the lock, three conditions may be the cause. The linkage might have failed, the linkage adjustment could be wrong, or the handle might be positioned improperly in its base.

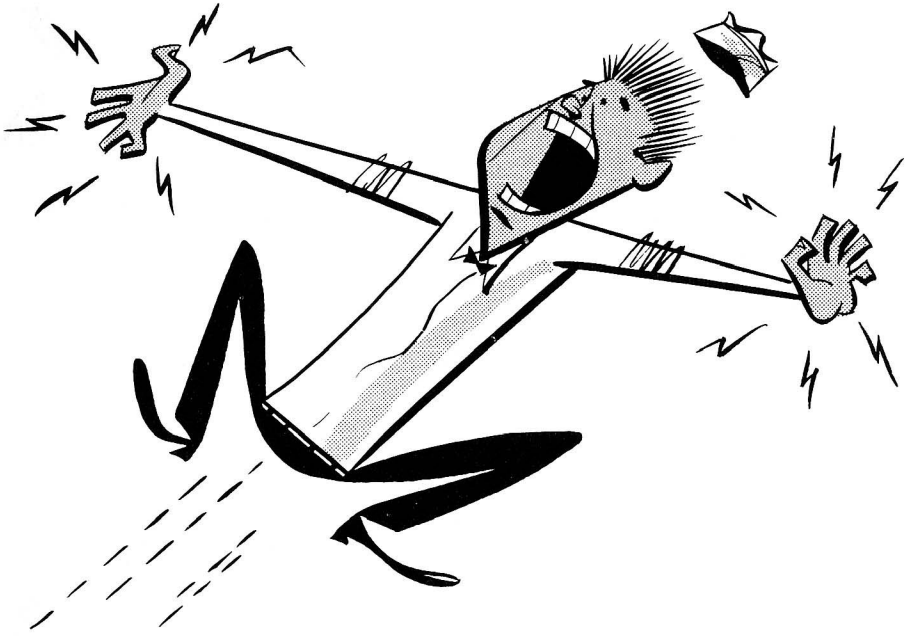
Knowing how the linkage looks and works will help you check its adjustment whenever the lock appears to need attention. For instance, the linkage consists of two flat steel links, with serrated surfaces, connected by a screw and washer. The upper link is riveted to the lever that works from the door handle. The lower link is riveted to the actuating lever of the lock. A small, turned-up lug of one link operates in a slot in the mating link, and serves as a guide.



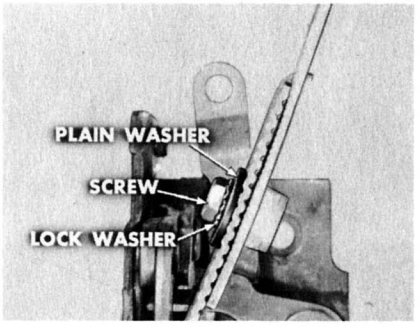
Now, on all models but the Imperials, you can remove a plug in the rear face of the door to check linkage operation and adjust it. Just reach in, loosen the screw and shorten the linkage. If the adjustment doesn't hold, then you'd remove the trim panel to get inside and check the linkage more thoroughly. On Imperials, you must remove the trim panel to check and adjust the linkage as there is no access hole in the rear face of the door.



Incidentally, you'll be working with an increasing number of electric window lift jobs from now on. So, always disconnect the battery ground cable before starting work on one of these jobs. Besides avoiding possible damage to the system, you'll save a lot of fingers.

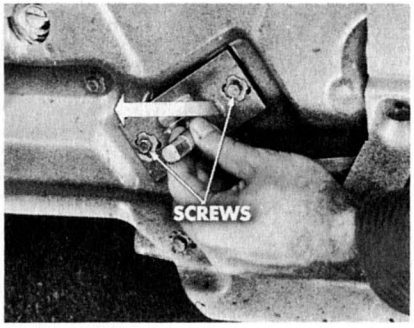


Getting back to checking door linkage . . . if you find a link screw with only a lockwasher under the screw head, install a ½" plain washer under the lockwasher. That will give the screw a tighter bite on the links and help to secure the adjustment.

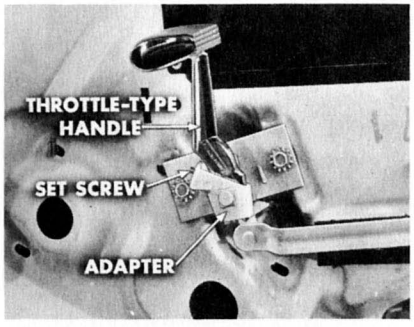


Once in a while, you might need more adjustment than the linkage provides. You can get it easily by just filing the slots longer in both the lower and upper links.

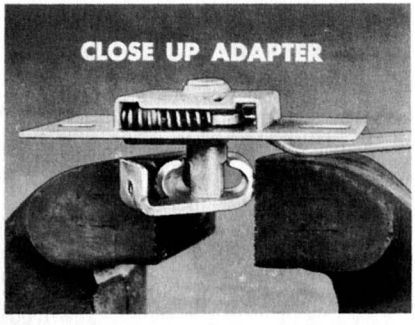
Any time you have the trim panel off is a good time to check operation of the remote control linkage. Slip the handle on the remote control shaft and move it back and forth to see if it works the lock satisfactorily.



If it doesn't operate the lock, loosen the remote control base screws. Slide the control away from the lock to eliminate any slack in the linkage. And, if the slotted screwholes in the panel don't allow enough movement, use a file and slot them a little more.

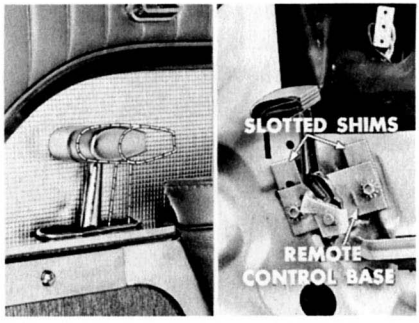


Throttle-Type Handle. On models that use the throttle-type handle, check for excessive handle movement in the adapter. Sometimes the set screw is turned in too far and spreads the adapter so the handle won't work the lock.



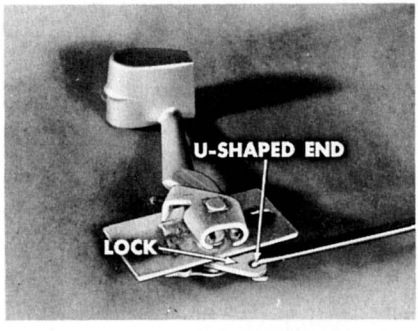
In a case like that, remove the remote control, and close up the adapter in a vise. When you reinstall the set screw, tighten it just enough to hold the handle securely.

Here's another condition to check. If a throttle-type handle won't return to its released position, it may be binding in the armrest guide slot. Slotted shims installed behind the remote control base will center the handle in its slot and eliminate the bind.

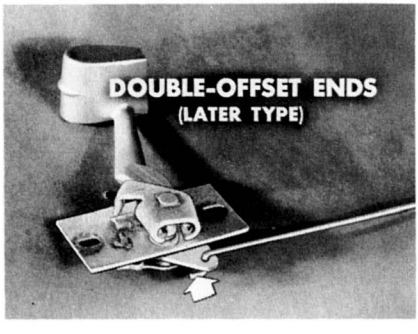


Remote Control Linkage—Imperial. The remote control assembly on the Imperial rear door is similar to that used on the front doors. The link, however, is made of steel rod instead of a flat stamping.

It is well to remember also, that Imperial models use two types of linkage. You may find a model with a U-shape bend at the lock end. If an owner tried to force the lock, the U-shaped end tended to straighten out slightly. This would elongate the linkage and it sometimes wouldn't actuate the lock.



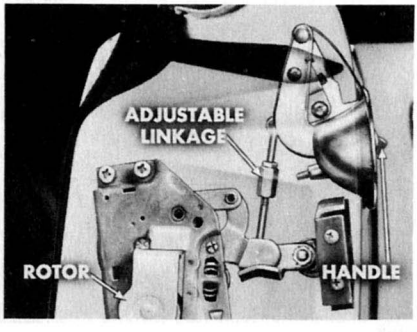
Other models have links with a double offset at both ends for greater strength. So, when you work on an Imperial with the U-shaped link, replace it with the double-offset type.



Rear Door Handle (Dodge, De Soto, Chrysler). No linkage is used between the door handle and lock on these models. The actuating lever on the handle should always be in contact with the lever on the lock. When the handle is raised, there should be instant lock operation response.

If the lock doesn't respond properly, the lever on the handle may be bent. You can remove the handle and reshape the lever to make better contact with the lock lever. You may have to bend the lever several times before you get the right lock operation response.

Rear Door Handle (Imperial 4-door Sedan, 4-door Hardtops). Rear door handle linkage on these models consists of an adjustable actuating link assembly connected between the handle and a bellcrank.



Two short rods, threaded at their inner ends and joined by a hex turnbuckle nut form this link. One end of the link connects to one arm of the bellcrank. The other arm of the bellcrank, shaped somewhat like a cam, lifts the rotor latch operating arm. Two types of links are used.

On some models, the outer ends were both provided with right-angle bends. The links were secured in the handle and bellcrank by clips. Other models have the outer end of the handle link provided with a double offset which engages in the handle actuating lever. No clip is used at this end.

If you find it hard to open the rear door from the outside, either the handle and lock linkage is improperly adjusted, or the link has become disconnected. If the link is connected at both ends, but the lock can't be operated, adjust the linkage by turning the hex nut connecting the two links. If the inner ends butt and prevent full adjustment, remove the link, disassemble it and cut off the two threaded ends to eliminate the interference.

GOOD SERVICE PAYS OFF

Hardtop owners, generally, are discriminating car buyers. You'll find it pays to give them "extra-special" attention. They'll tell all their friends about it, and word will get around that Master Technicians are the best bet for that "extra-special" body service. And, that—of course—is exactly what we're after.

RECORD YOUR ANSWERS TO THESE QUESTIONS ON QUESTIONNAIRE NO. 117

Window adjustments alone won't help if doors are out of alignment or if the door openings aren't squared up properly.

RIGHT 1 WRONG

On hardtops, start door adjustments at the front door and work toward the rear.

RIGHT 2 WRONG

Interference between the upper rear corner of the rear door and the quarter panel can be corrected by shimming at the #3 and #4 body bolts.

RIGHT 3 WRONG

When making window adjustments, start with the front vent window frame and work toward the rear.

RIGHT 4 WRONG

As the front door closes, the frame should just clear the weatherstrip deflector lip, curl back the primary lip, and rest against the secondary lip when fully closed.

RIGHT 5 WRONG

Always adjust upper stops with the glass fully raised and the door closed.

RIGHT 6 WRONG

Over the quarter window, the header weatherstrip is channeled so the glass frame runs inside instead of sealing against a lip.

RIGHT 7 WRONG

On all models but Imperials, you can check and adjust door handle linkage operation through an access hole in the rear face of the door.

RIGHT 8 WRONG

Always disconnect the battery ground cable before starting window adjustments on electric window lift jobs.

RIGHT 9 WRONG

If a throttle-type handle binds in the armrest guide slot, slotted shims installed behind the remote control base will center the handle and eliminate the bind.

RIGHT 10 WRONG

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