THE MASTER TECHNICIAN'S

SERVICE REFERENCE BOOK

SESSION NO. 63-1

1963 MODEL PREVIEW

MASTER TECHNICIANS SERVICE CONFERENCE
PREPARED BY CHRYSLER CORPORATION
PLYMOUTH · DODGE · CHRYSLER · IMPERIAL

Speaking of blind dates...

Meeting the new-model cars is sort of like a blind date! It doesn't take more than a couple of minutes to form an impression of the overall style, general lines, and proportions. It takes a lot longer to get acquainted with the more subtle but equally important details and features!

You know by now that 1963 models are completely restyled. But, do you also know that practically every door and rear quarter glass for the Dart and Valiant models is completely different? What's more, all of the glass runs, run channels, guide channels and regulators are all-new, too.

Since glass operation is mighty important to customers and since these new models *are* completely different, a major portion of this reference book is devoted to glass adjustments. Generally speaking, the mechanical changes are not as numerous. Only those which have a direct bearing on your job of servicing the new models will be covered in this issue.

Actually, there are a lot of differences between a blind date and the 1963 model cars. For one thing, no one ever provided an eager suitor with a reference book on handling his blind date! Tech is sure that this issue of the reference book will help all of you service technicians to get acquainted with the new-model service highlights the easy way. Read it and you won't have to "blind-date" the first 1963 model that comes your way.

SEDAN AND STATION WAGON DOOR AND QUARTER GLASS SERVICE

The 1963 Dart and Valiant bodies feature completely new door and quarter glass, glass runs, guide channels and regulators. Adjustment points and procedures are new, too. An understanding of the design changes will help you do a better job of handling door and quarter glass service on the new Dart and Valiant models.

LIFT BRACKET ATTACHMENT

There is no lower glass frame on these models. Instead, a lift bracket is attached directly to the lower edge of the door glass. A plastic rivet is used to attach the lift bracket.

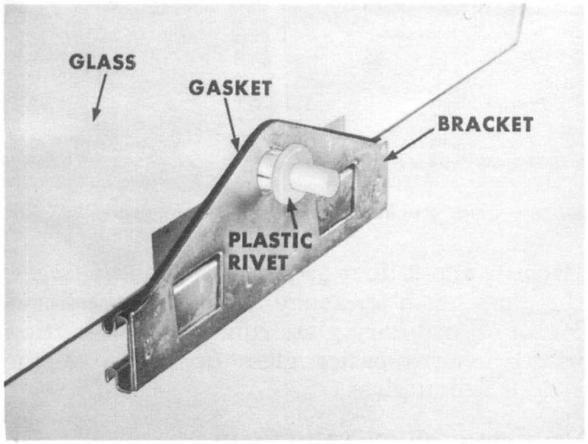


Fig. 1 — Door glass and lift bracket detail

LIFT BRACKET ASSEMBLY AND DISASSEMBLY

The lift bracket is easily attached to, or removed from the door glass. To assemble the bracket to the glass, line up the holes in the glass, gasket and lift bracket. Push the plastic rivet through from the *lift bracket side*.

Just make sure that the head of the plastic rivet is tight against the bracket and the expandable end of the rivet is all the way through the hole in the glass. Then drive the plug into the rivet to lock the rivet in place.

To separate the lift bracket from the glass, just push the plug out of the rivet. Next, pinch the expandable ends of the rivet together and push the rivet out of the glass. Save the plastic rivet and plug. You can re-use them.

FRONT DOOR REGULATOR

The single-arm regulator is bolted to the door inner panel. Regulator position is not adjustable. That's because with a single-arm regulator and single lift point, adjusting the regulator would not affect glass alignment. The lift end of the regulator arm rides in the lift bracket channel. The down-stop adjustment is incorporated in the regulator.

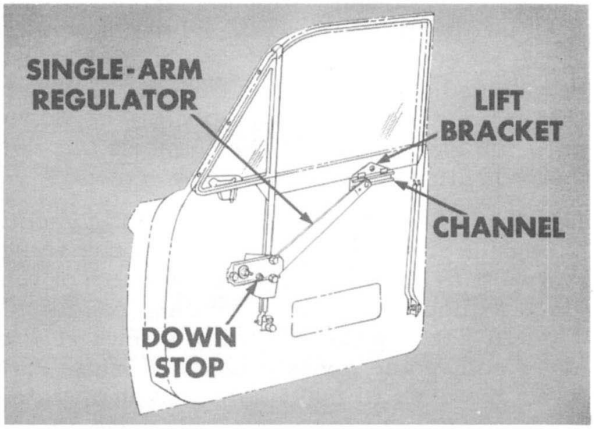


Fig. 2 — Front door single-arm regulator

FRONT DOOR GLASS ADJUSTMENTS

Careful fore-and-aft adjustment of the division channel is very important. The division channel must be adjusted rearward far enough to remove looseness of the glass in the run channels. That's because with the single-arm regulator and single glass lift point, a glass that is loose in the glass runs may dig into the channels and actually operate harder than a glass that is fitted on the snug side.

Vent-wing adjustment. Fore-or-aft adjustment of the upper end of the vent-wing assembly is accomplished by moving the vent wing and division channel up or down. The vent-wing assembly moves forward and downward to relieve a door glass that is tight. It moves rearward and upward to remove looseness.

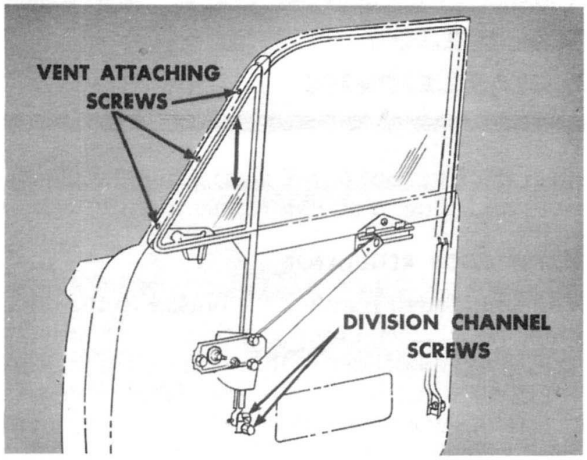


Fig. 3 — Vent-wing adjustment

The three vent-wing attaching screws in the front face of the door and the adjusting screws at the lower end of the division channel must be loosened. Then, with the glass raised, move the entire vent-wing assembly up or down until the glass is free in the channels *but not loose*. Tighten the vent attaching screws.

Division channel and glass run alignment. Lower the glass and move the division channel rearward to remove excessive looseness of the glass without creating a binding condition. Tighten both of the adjusting screws at the lower end of the division channel. Raise and lower the glass to make sure that it operates freely. In some cases, you may have to re-adjust the lower end of the division channel in or out to get the best possible alignment of the division channel with the rear glass run.

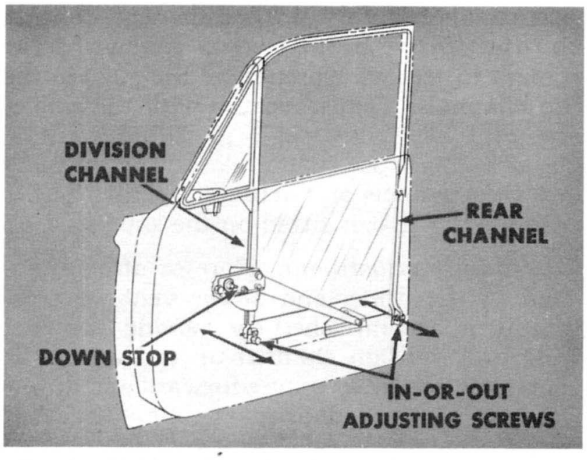


Fig. 4 — Division channel and rear glass run alignment

If necessary, you can adjust the lower end of the rear run channel in or out. Adjust the down-stop so that the top edge of the glass is just flush with the top edge of the glass opening in the door.

FRONT DOOR, 2-DOOR SEDAN

The front door glass adjustment is the same for 2-door sedans as for 4-door sedans. However, on 2-door sedans a low-friction liner or insert is used inside of the rear glass run.

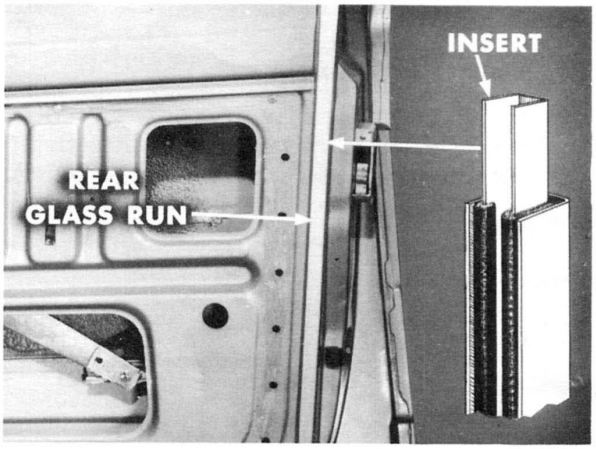


Fig. 5 — Rear run insert—2-door sedan

Because the 2-door sedan door glass is larger, the glass has a tendency to dig into the flocking of an ordinary glass run. The low-friction insert insures easier glass operation of the 2-door sedan glass.

VENT-WING PIVOT ADJUSTMENT

Fig. 6 — Vent-wing-pivot tension adjustment

The lower vent-wing pivot, on all Valiant and Dart models, is provided with a new brake-type pivot tension adjustment. The new star wheel adjusting screw ratchet is used to reduce or increase effort required to close and open the vent wing. Use a narrow-bladed screwdriver to reach through an opening provided in the weatherseal just ahead of the lower pivot to turn the screw.

SEDAN REAR DOOR GLASS

A single-arm regulator is also used on sedan and station wagon rear doors. The lift bracket is attached to the glass with a plastic rivet . . . the same as for front doors. The regulator position is not adjustable.

Division channel adjustment. The front glass run is fixed except for in-or-out adjustment at its lower end. The division channel can be adjusted fore or aft, as well as in or out.

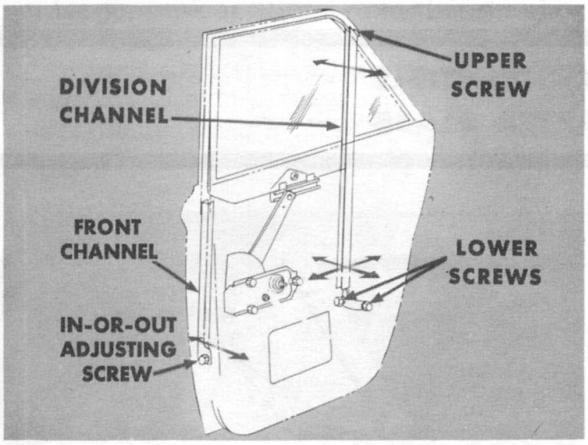


Fig. 7 — Sedan rear-door division channel adjustment

If adjustment of the division channel is necessary to relieve a bind when the glass is raised, loosen the upper channel attaching screw. Generally, sufficient movement of the channel is possible at this point to correct any binding or looseness of the glass. However, if additional channel movement is required, this can be obtained by lowering the glass and loosening the two attachment screws at the lower end of the channel.

Alignment of the front glass channel with the division channel can be accomplished by adjusting the in-or-out adjusting screw, accessible on the front face of the door. If additional in-or-out movement is required to obtain proper alignment of the glass, adjust the in-or-out adjusting screw at the lower end of the division channel.

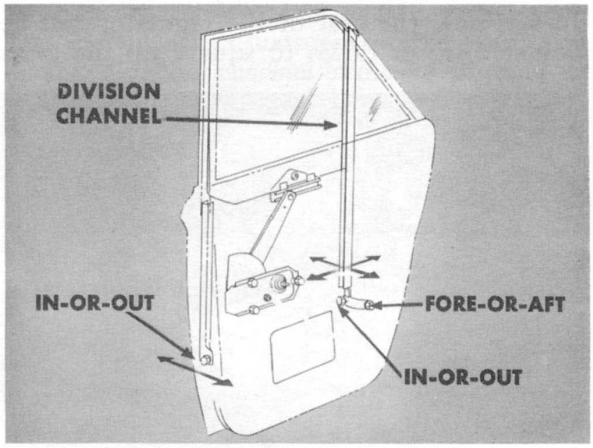


Fig. 8 — Rear door channel adjustments

TWO-DOOR SEDAN REAR QUARTER GLASS

A two-arm regulator is used for two-door sedan rear quarter glass. One regulator arm is attached directly to the quarter glass. A nylon bushing is used to isolate the regulator arm stud from the hole in the front of the glass. The lift bracket, plastic-riveted to the glass, has a channel guide for the rear regulator arm.

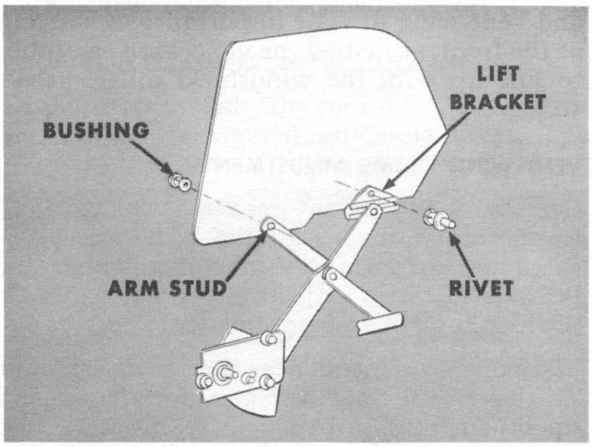


Fig. 9 — Sedan rear quarter glass and regulator detail

Regulator adjustments. The regulator assembly can be adjusted fore or aft. This moves the glass fore or aft to get a good fit or engagement of the glass in the front glass run.

In addition, the rear of the regulator can be adjusted up or down to square up the glass in the opening. It is important to adjust regulator position to obtain full, uniform engagement of the leading edge of the glass in the front glass run.

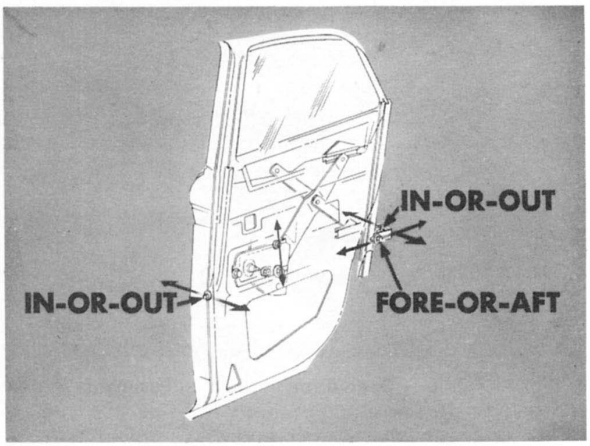


Fig. 10 — Rear quarter glass regulator and channel adjustments

Run channel adjustments. The lower end of the front glass run channel should be adjusted in or out so that the entire front run forms a straight line from top to bottom. This is easily done if the glass is lowered halfway so that the glass lines up the upper and lower sections of the front run.

On Dart models, the lower end of the rear glass run channel should be adjusted forward, while the glass is fully lowered, to remove looseness. An in-or-out adjustment is also provided at the lower end of the Dart rear run channel. Valiant rear quarter glass only lowers halfway, so there are no rear run channel adjustments to worry about.

HARDTOP AND CONVERTIBLE DOOR AND QUARTER GLASS

As in the past, check door fit and correct if necessary, before attempting to adjust glass and vent-wing fit. The importance of starting at the front, adjusting the vent-wing assembly to line up with the windshield pillar, hasn't changed.

VENT-WING FRAME ADJUSTMENTS

On Dart and Valiant models, the two vent frame adjustments near the belt line are located under a decorative model nameplate. To get at these two adjusting screws, carefully pry the nameplate from the door inner panel.

The two adjustments near the belt line permit shifting of the vent assembly fore or aft and up or down. The two vent frame attaching screws at the front of the vent must be loosened to allow the frame to move. The adjusting screw at the lower end of the vent-wing leg is used to tilt the top of the vent frame in or out. The lower end of the division channel can be adjusted both in or out and fore or aft.

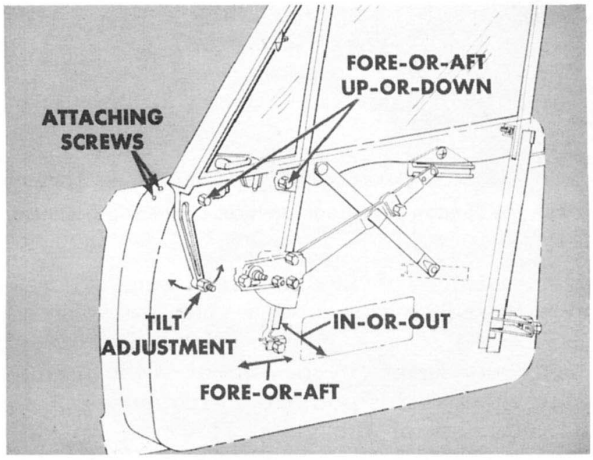


Fig. 11 — Vent-wing assembly adjustments

FRONT DOOR GLASS AND REGULATOR

The two-arm regulator is attached to a nylon-bushed hole at the front of the glass. The lift bracket, toward the rear of the glass, is attached to the glass with a plastic rivet.

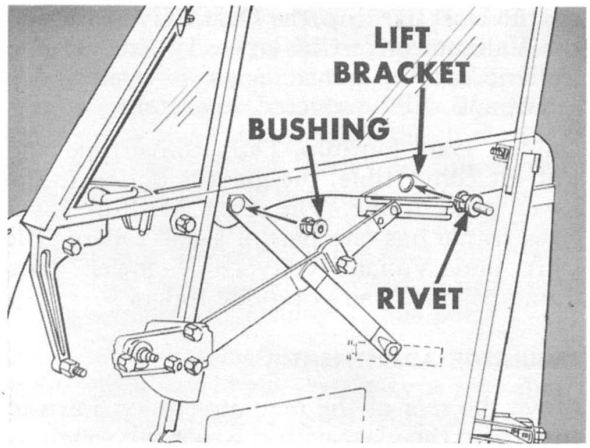


Fig. 12 — Front door glass and regulator

REGULATOR ADJUSTMENTS

For a good engagement of the glass in the division channel run, shift the regulator assembly forward. It is important that the glass seat fully in the division channel. Alignment of the front edge of the glass with the division channel is also important. Shift the rear of the regulator assembly up or down to level the glass and align it with the division channel.

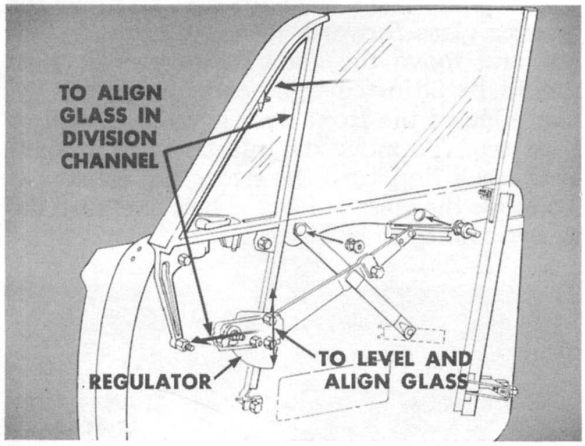


Fig. 13 — Regulator adjustments

DIVISION AND REAR CHANNEL ADJUSTMENTS

The in-or-out adjustment at the lower end of the division channel affects the fit of the vent-wing frame at the roof rail. It tips the top of the vent frame in or out. Once the vent frame is correctly adjusted, the in-or-out adjustment of the lower end of the division channel is established.

The fore-or-aft adjustment at the lower end of the division channel removes binding or looseness of the glass when in the lowered position.

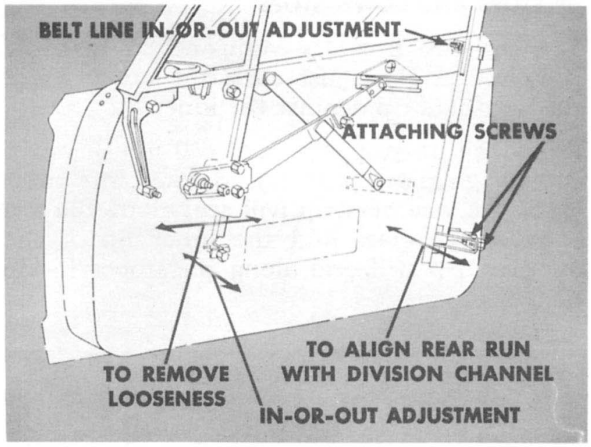


Fig. 14 — Division and rear channel adjustments

The lower end of the lower rear channel can be adjusted in or out to align it with the division channel. Both attaching screws at the lower end of the rear channel must be loosened to make this adjustment. If the glass binds at the belt line, the upper end of the rear channel can be adjusted in or out to center the glass between the inner and outer cat's whiskers.

ROOF RAIL WEATHERSTRIP ADJUSTMENT

On hardtop models, the roof rail weatherstrip retainer has elongated attaching holes. The

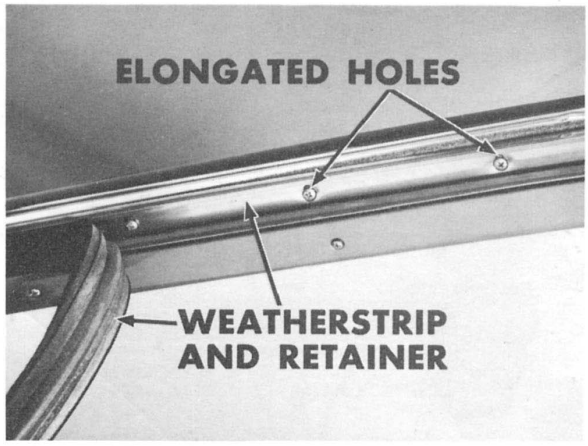


Fig. 15 — Roof-rail weatherstrip adjustment

weatherstrip can be easily moved in or out for the best possible fit and seal along the top edge of the vent frame, door glass and quarter glass.

UP-STOPS AND DOWN-STOPS

The up-stop must be adjusted so that the fully raised glass just curls the outer lip of the weatherstrip against the inner lip.

When the up-stop, the roof rail weatherstrip and the glass are properly adjusted, the outer lip of the weatherstrip will seal along the top edge of the glass and the inner lip of the weatherstrip will seal along the upper inside edge of the glass.

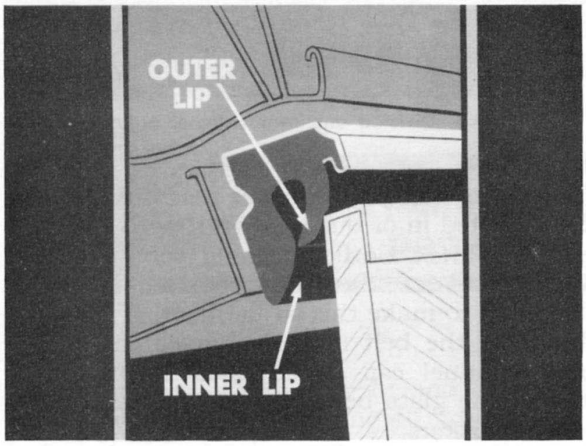


Fig. 16 — Correct glass fit at roof rail

HARDTOP AND CONVERTIBLE QUARTER GLASS

The rear quarter glass design and adjustments for the Dart hardtop, the Dart convertible and the Valiant convertible are very similar. The Valiant hardtop quarter glass is entirely different and will be covered separately.

On the Dart hardtop, Dart convertible and Valiant convertible, the glass is bolted to the lower glass frame. The Dart hardtop lower glass frame has one pair of guide rollers. The Dart and Valiant convertible lower glass frame has two pairs of guide rollers.

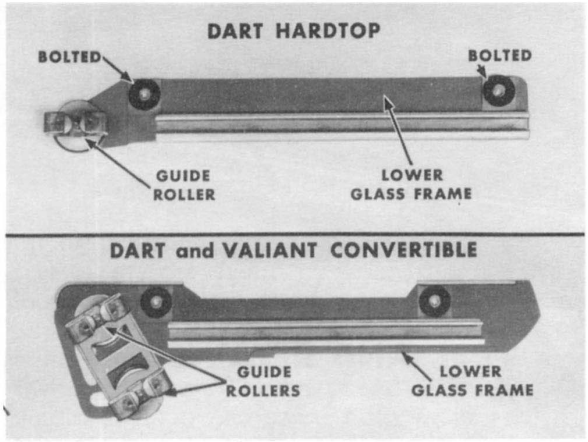


Fig. 17 — Lower glass frame with guide rollers

REGULATOR ADJUSTMENT

Move the rear of the regulator up or down to square up the glass with the roof rail weatherstrip and the rear edge of the front door glass. No fore-or-aft adjustment of the regulator is required because the front guide track adjustment moves the quarter glass fore or aft.

GUIDE TRACK AND CHANNEL ADJUSTMENTS

The front guide track adjustments are very important for obtaining proper alignment and contact between the leading edge of the quarter glass and the rear edge of the door glass.

Upper guide track adjustments. To move the quarter glass forward, loosen the upper jam nut and move the glass forward. The glass should be adjusted tight enough against the rear edge of the front door glass to provide a good seal. To move the quarter glass inboard at the belt line, turn the sleeve nut clockwise. To move the glass out at the belt line, turn the sleeve counterclockwise.

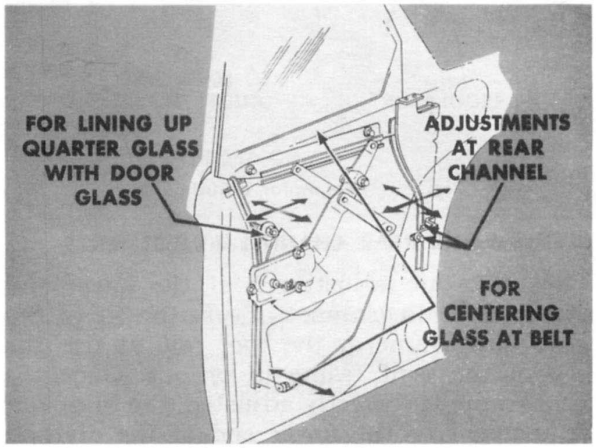


Fig. 18 — Front guide track and rear channel adjustments

Lower guide track adjustment. Lower the quarter glass about 1/8-inch. Loosen the in-or-out adjustment screw at the lower end of the rear channel. Adjust the lower end of the front guide track in or out to bring the upper front corner of the quarter glass into full contact with the rear edge of the door glass. Raise the glass fully and check the fit at the roof rail weatherstrip. Remember, the roof rail weatherstrip can be adjusted in or out, if necessary, to improve fit and sealing at this point.

Rear channel adjustments. The adjustments at the lower end of the pocket-type rear channel are easily made. Loosen both the fore-or-aft and the in-or-out adjusting screws. Lower the glass fully and tighten both screws.

VALIANT HARDTOP QUARTER GLASS

The Valiant hardtop rear quarter glass design is different than any of the other Valiant or Dart models. The glass and lower glass frame assembly pivots at the lower front corner. The front corner is also hinged so that it can swing inward as it is lowered. As the glass is lowered, the rear of the glass follows a curved rear guide channel which sweeps forward and inward. A single-arm regulator is used.

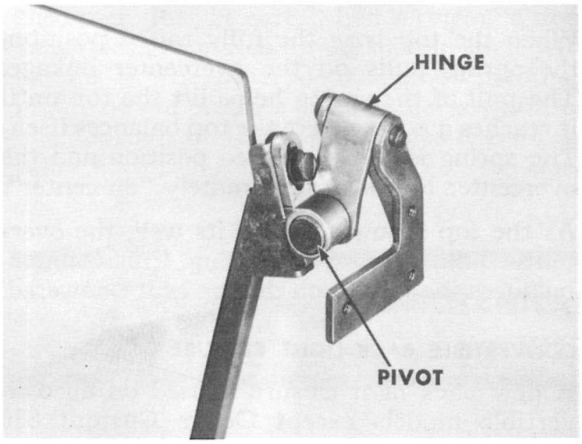


Fig. 19 — Valiant hardtop quarter glass

HINGE AND PIVOT ADJUSTMENTS

The quarter glass can be adjusted fore or aft by loosening the screw which attaches the glass frame to the pivot portion of the hinge assembly. Use this adjustment to adjust contact between the leading edge of the quarter glass and the rear edge of the door glass.

The front of the glass can be adjusted up or down by loosening the three hinge attaching screws. All hinge assembly adjusting screws are readily accessible from the front face of the lock pillar.

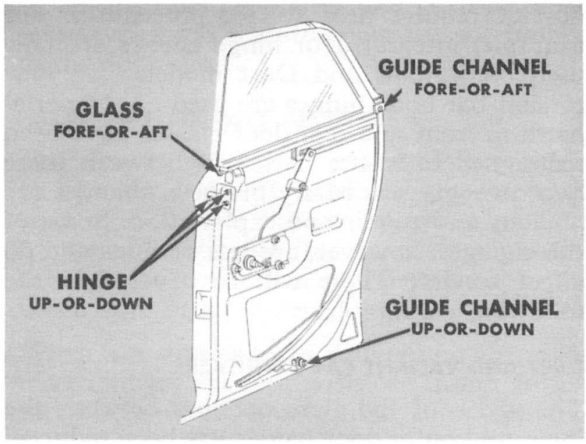
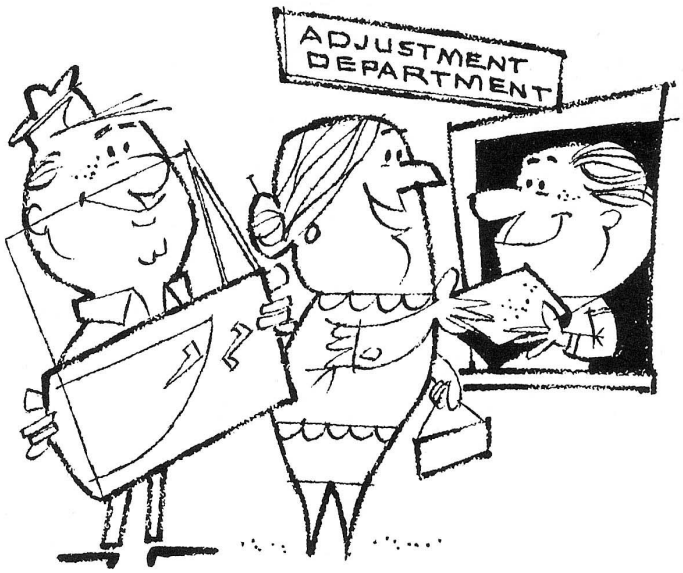


Fig. 20 — Valiant quarter glass adjustments

REAR GUIDE CHANNEL ADJUSTMENTS

The upper end of the guide channel should be adjusted fore or aft to insure good engagement of the glass without binding. The lower end of the guide channel can be adjusted up or down. This adjustment is made with the glass lowered. When properly adjusted, there should be 1/8-inch clearance between the guide portion of the lower frame and the guide channel.



OTHER BODY FEATURES AND SERVICE ADJUSTMENTS

There are numerous other body design changes. Many of these are refinements which do not require new service procedures. For example, integral door hinge checks are now used on Valiant and Dart models . . . new torsion-bar hood hinges are used . . . Imperial hardtop front and rear door glasses have been redesigned to insure better fit between these two door glasses. Many of these changes are obvious and require no explanation. Some of the changes, however, are less obvious and do affect service. These will be covered in the following paragraphs.

DART AND VALIANT CAT'S WHISKERS

The width of the glass opening between the inner and outer door panels has been reduced. The inner and outer cat's whiskers fit more tightly against the glass. Narrowing the glass opening will reduce water leakage past the glass and into the door. It will also reduce glass rattles.

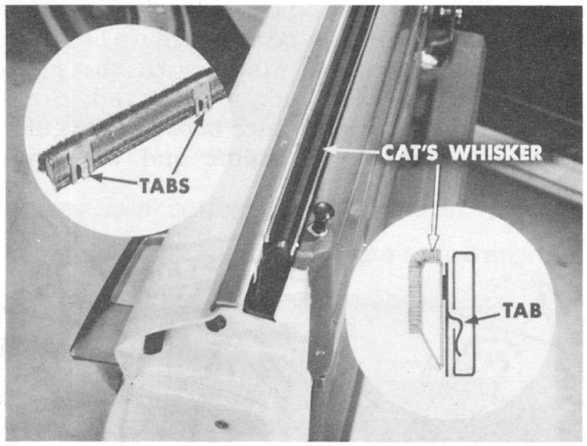


Fig. 21 — New cat's-whiskers attachment

Because of the narrower glass opening, the method of attaching the cat's whiskers has been changed. The retainer has attaching tabs instead of spring-type clips. Remember this change when removing the cat's whiskers. Do not try to snap the tabs out of the retaining holes. A rolling and lifting motion must be used to disengage the tabs from their attaching holes.

MANUAL-TOP CONVERTIBLE

Convertibles with manual top are available in the Dart and Valiant lines. Top linkage and header adjustments are essentially the same as the adjustments for past and present models with power-operated top.

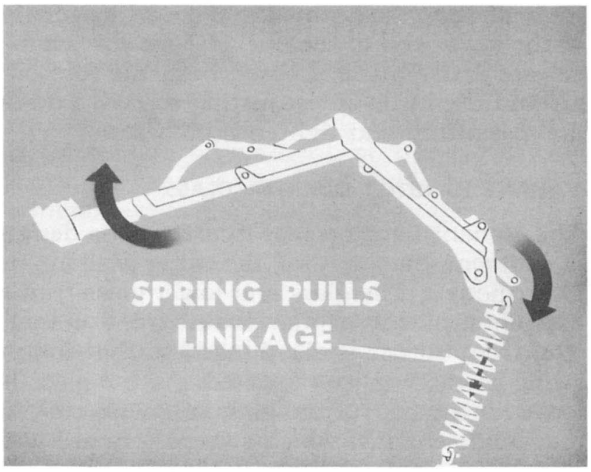


Fig. 22 — Manual top overcenter linkage and spring

When the top is in the fully raised position, the spring pulls on the overcenter linkage. The pull of the spring helps lift the top until it reaches a point where the top balances itself. The spring is in the relaxed position and the overcenter link is approximately "on center".

As the top is lowered into its well, the overcenter link pulls on the spring. This counterbalances the weight on the top as it is lowered.

CONVERTIBLE BACK-LIGHT CLOSURE

A new back-light closure is used on all convertible models except Dodge Custom 880 and Imperial.

A zipper is still used across the top of the back light. No zipper is used at the sides of the back light. Instead, thousands of tiny burr-like hooks in the closure strip attached to the top, grip the short-pile closure strip attached to the back light.

To open the back light, simply unzip the top edge and pull the upper corners downward

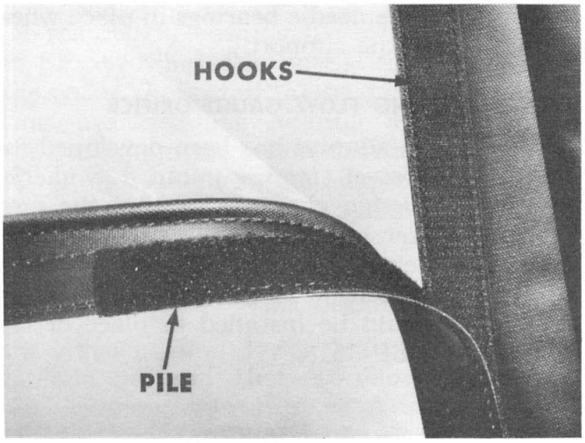


Fig. 23 — Convertible back light closure

and inward. To close the back light, run your thumb up the sides of the back light to press the pile strip against the hooked strip.

INSIDE HANDLE ATTACHMENT

One of the design changes that you will appreciate is the new method of attaching the regulator and inside door handles. By now you have probably noticed that they are retained by readily accessible hex-head screws. With this method of attachment, the angle of the handle can be changed to suit the individual customer. Just be sure, when servicing a door or window, to match up the handle angle with handle on the other door. Some customers might not appreciate the handle position on one door not matching handle position on the other door.

TAILGATE GLASS ATTACHMENT

The tailgate glass and the lower frame assembly will be serviced separately. This does not affect glass adjustments but it does represent a saving when replacing tailgate glass or the lower frame assembly. The lower frame is attached to the glass with plastic rivets of the same type used for attaching the lift bracket to the door glass.

FRONT SEAT SIX-WAY ADJUSTMENT

The six-way front seat adjustment, featured on past models with bench-type seats, is extended to models having bucket seats. This design makes it possible to custom-position the seat to the driver's preference . . . up, down, fore or aft, tilted.

When a customer takes delivery on a new car, have him try the seat position. If any adjustment is required, it only takes a few minutes.

Adjustments should be made on both sides of the seat. Bucket seats can be adjusted individually, but trim shields, attached to the outside support plates, must be removed to gain access to the adjusting bolts.

Adjust the seat by loosening the two adjusting bolts *on each side,* just enough so the seat can be moved. Move the seat to the desired position and tighten the adjusting bolts.

If additional seat height is required, spacer packs as thick as ½-inch can be installed on the attaching bolts under the stationary support plate.

MECHANICAL AND ELECTRICAL SERVICE HIGHLIGHTS

POWER STEERING CROSS SHAFT GREASE RETAINER

A new outer grease retainer is used at the lower end of the power steering gear cross shaft. To make room for the new grease retainer, the depths of the cross shaft counterbore have been increased on Dart, Valiant, Plymouth and Dodge power gears. The depth of the counterbore in Chrysler and Imperial gears was already deep enough to take the new retainer and it *can be* installed on past model Chrysler and Imperial gears *only*.

When installing the cross shaft inner seal in 1963 Dart, Valiant, Plymouth and Dodge gears, you *must use* the new SP-3828 Adapter. This adapter positions the seal at the correct

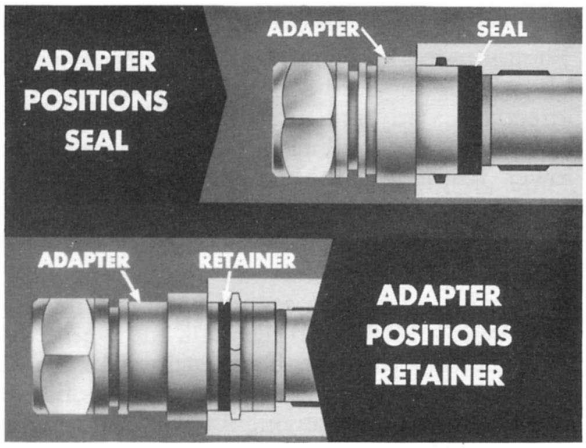


Fig. 24 — Cross-shaft seal adapter SP-3828

depth in the counterbore. Use the other end of the adapter to position the new grease retainer correctly. After installing the inner seal, seal backup ring and snap ring, the grease retainer is installed with rubber face inward. Use the short end of Adapter SP-3828 to position the retainer at the correct depth.

POWER STEERING NEEDLE BEARINGS

A new special tool is required to hold the needle bearings in place when servicing the power train assembly. Before removing the jacket tube support, hold the tool against the end of the worm shaft. Then, when the tube support is removed, the needle bearings in the support will slide over the arbor-end of the tool. The tool simply takes the place of the worm shaft and retains the needle bearings so that they won't spill out and be lost. Use the tool to hold the needle bearings in place when reassembling the support.

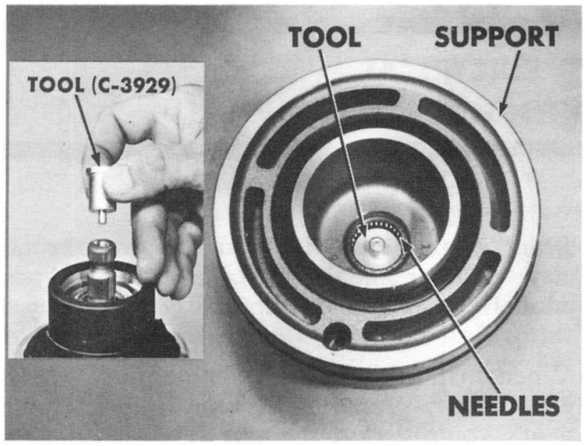


Fig. 25 — Special needle bearing retaining tool

POWER STEERING FLOW GAUGE ORIFICE

A new orifice adapter has been developed for the C-3885 power steering pump flow checking gauge. Design characteristics of the new orifice adapter make it possible to more accurately determine whether the pump meets flow specifications. The new Orifice Adapter SP-3825, should be installed in place of the old Adapter SP-3618.

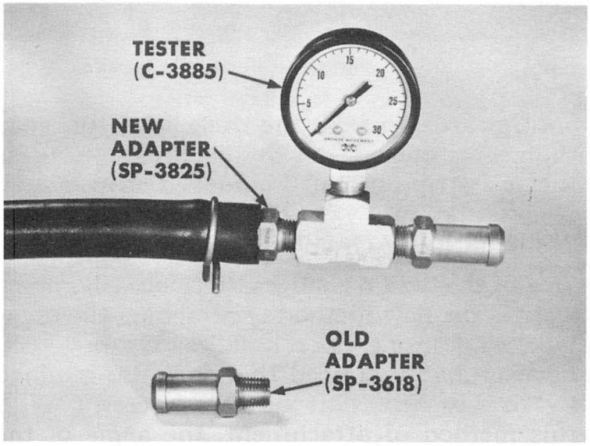


Fig. 26 — New flow gauge orifice adapter

UPPER CONTROL ARM REAR BUSHING LOCKING RING

A new steel locking ring is used on the upper control arm on Chrysler and Imperial models to secure the rear bushing in the arm. Two new tool adapters are used with Bushing Removing and Installing Tool C-3710.

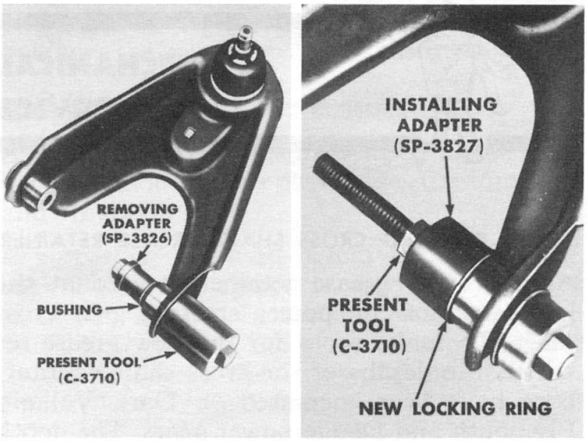


Fig. 27 — Upper control arm bushing tools

To remove the bushing, use Removing Adapter SP-3826, installed on the tool, forward of the collar. To install the bushing and locking ring, use Installing Adapter SP-3827. Place the bushing in the arm as before. Remove the installing tool. Place the adapter and locking ring on the installing tool and press the locking ring into place.

LOWER BALL JOINT WEAR GAUGE

Front suspension lower ball joints have a built-in clearance that can allow as much as .050-inch axial end play. A special Wear Gauge C-3911, has been developed to accurately check the wear and avoid needless replacement of ball joints. The gauge fits in the threaded opening on the underside of the joint. As the gauge handles are squeezed together, the amount of clearance is accurately indicated on the gauge scale.

POWER BRAKE BOOSTERS

Valiant and Dart for 1963 do not have factory-installed power brakes. Two single-diaphragm-type booster brakes are used on all other 1963 models, except Imperial, which retains the dual-diaphragm booster used in 1962 Imperials.

Single-diaphragm boosters. One is a Bendix design, using two stamped steel housings, secured by screws in the periphery. The other unit is a Midland-Ross design, using a die-cast aluminum front housing and a stamped steel rear housing.

Both units can be easily disassembled and serviced without the need for special tools. Before disassembling, be sure to scribe index marks on both housings to facilitate reassembly. Precautions should be taken, when separating the two housings of the Bendix booster, to clamp them so that the power piston return spring does not cause the two housings to fly apart.

IMPERIAL PARKING BRAKE

A parking brake automatic release device is used on Imperial models. It releases the parking brake when the transmission is shifted out of neutral with the engine running. The automatic vacuum release mechanism permits the parking brake pedal to be "feathered" like the service brake pedal.

CLOSED-CRANKCASE VENTILATION SYSTEM

The closed-crankcase ventilation system is standard on all 1963 cars. Neglecting periodic cleaning can cause erratic engine operation and engine sludging. Complete instructions for cleaning and servicing the components are given in MTSC Session No. 175, The Master Touch, except that since the groove has been removed from the valve, it is no longer necessary to take precautions to install the spring in the groove.

FULL-FLOW ENGINE OIL FILTER

1963 Plymouth and Dodge cars with the 318-cubic-inch engine are equipped with a full-flow engine oil filter. As a result of this change, all 1963 Chrysler Corporation cars (except possible special fleet orders) are serviced with the same replacement "spin on" filter.

CAUTION: Due to internal oil passage changes, it is very important that only the specified full-flow replacement filter be used on 1963 cars with 318-cubic-inch engine. Likewise, cars with 318-cubic-inch engines built prior to this change require the shunt-type replacement filter.

CARBURETOR—225-CUBIC-INCH ENGINE

A new Stromberg, single-throat carburetor, identified as WA-3, is used on the 225-cubic-inch engine. Service specifications for this carburetor are as follows:

Float Level	11/32 inch
Use Stromberg Gauge 73808	
Idle Mixture Screw Setting	Open ¾ to 1 turn
Idle Speed	550 r.p.m.
Fast-Idle Speed	1400 r.p.m.

CARBURETORS—ALL MODELS

Carburetor calibration refinements have been made in all carburetors.

The refinements built into the 1963 carburetors cannot be adapted to earlier model carburetors due to the calibration changes tying in with the closed-crankcase ventilation system. Likewise, it is not practical to install the 1963 carburetors on earlier model cars.

SPRING-STAGED CHOKE

A new, spring-staged choke is featured on the 170-cubic-inch engine to improve starting at low temperatures. It consists of a coil spring and bell crank mechanism that reduces choke blade closing torque when cranking the engine at temperatures below zero.

To check choke for correct operating clearance: *On Holley carburetors,* press firmly against the hub lever to hold the choke in closed position. Clearance between hub lever and shaft lever should be .008″-.032″. Adjust clearance by bending fast idle connector rod. *On BBS carburetors,* hold choke valve firmly closed with fingers. Clearance between hub lever tang and air horn boss should be .010″-.020″. Adjust clearance by bending tang. Use Tool T100-213.

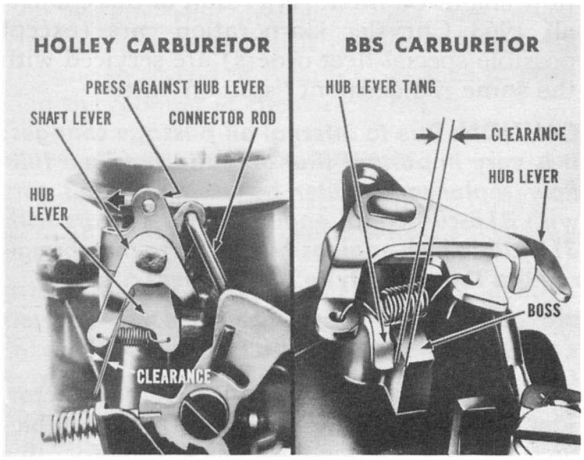


Fig. 28 — Spring-staged choke

ALTERNATOR DESIGN CHANGES

Improvements have been incorporated in the alternator. Among these are the new double-sealed front ball bearing, an improved rear bearing seal and a molybdenum disc, which serves to keep the diode rectifiers cooler. The alternator housings are chemically treated to improve corrosion resistance.

SERVICING ALTERNATOR DIODE RECTIFIERS

Several new tools have been added to facilitate servicing. A new screw-type press (C-3928) eliminates the need for using an arbor press to remove and install diode rectifiers. It can be used on past and present alternators.

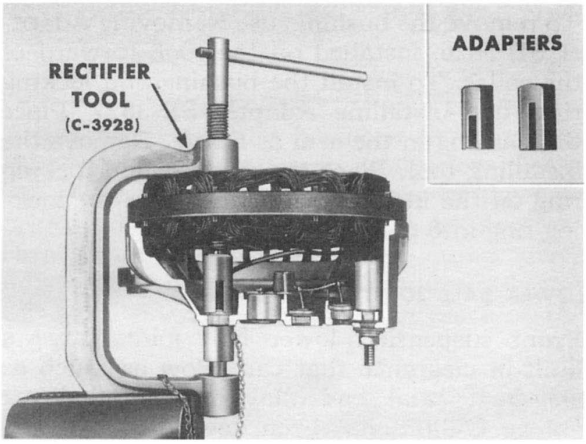


Fig. 29 — Diode rectifier removing and installing tool

REAR BEARING SEAL

The C-3921 Bearing Grease Retainer Installer and Locator is essential to avoid distortion and resulting interference by correctly installing the new fiber washer and retainer.

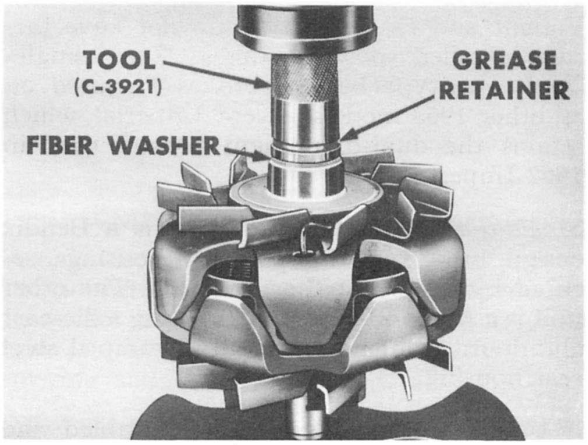


Fig. 30 — Installing rear bearing grease retainer

END SHIELD BEARING TOOL

The new C-3925 End Shield Bearing Removing and Installing Support must be used with End Shield Bearing Removing Tool C-3770. It is machined on both ends to fit all models of alternators. It should be used to support the alternator end housing when removing or installing bearings. Its use eliminates the possibility of breaking the housing when performing either operation.

SERVICE REPLACEMENT SPARK PLUGS

When packaged, all service replacement spark

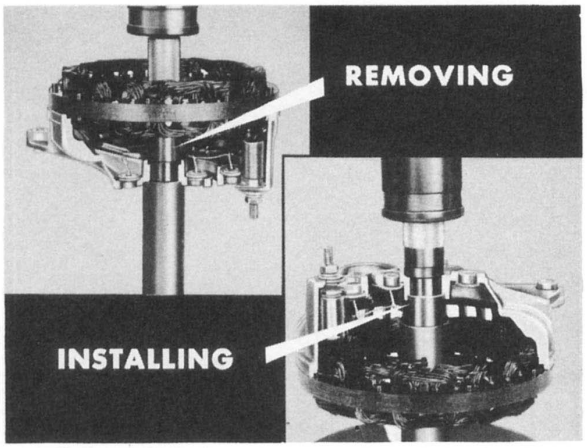


Fig. 31 — Bearing removing and installing support

plugs are provided with new gaskets to assure a good compression seal and to prevent overheating of the plugs.

When installing replacement N 14 Y spark plugs, or reinstalling cleaned and respaced N 14 Y spark plugs in 1963, 170- and 225-cubic-inch, six-cylinder engines, gaskets should *not* be installed under the spark plugs.

The aluminum spark plug tube and a relief in the spark plug hole in the cylinder head make the use of a gasket unnecessary. If gaskets are installed, they will raise the spark plug electrodes higher in the combustion chamber and may affect the operating efficiency of the engine.

1963 ENGINE TUNE-UP SPECIFICATIONS

ENGINE SIZE	SPARK PLUG TYPE	SPARK PLUG GAP	IGNITION POINT GAP	IGNITION TIMING BTC	IDLE SETTING R.P.M. (A) or (M)	CAM DWELL	TAPPET SETTING (HOT)
170 CU. IN.	N 14 Y AG 52 (C)	.035"	.017-.023"	2.5°	550*	40-45° 36-42° (C)	.010" IN. .020" EX.
225 CU. IN.	N 14 Y AG 52 (C)	.035"	.017-.023"	2.5°	550*	40-45° 36-42° (C)	.010" IN. .020" EX.
313 CU. IN. (C)	A 42	.035"	.014-.019"	5° (M) 10° (A)	500	27-32°	.010" IN. .018" EX.
318 CU. IN. 2-BBL.	J 12 Y	.035"	.014-.019"	5° (M) 10° (A)	500	28-33°	.013" IN. .021" EX.
361 CU. IN. 2-BBL.	J 12 Y A 42 (C)	.035"	.014-.019"	10°	500	28-33°	
361 CU. IN. 2-BBL. (PP)	J 12 Y A 42 (C)	.035"	.014-.019"	10°	500	28-33°	
383 CU. IN. 2-BBL.	J 12 Y A 42 (C)	.035"	.014-.019"	10°	500	28-33°	
383 CU. IN. 4-BBL.	J 9 Y A 42 (C)	.035"	.014-.019"	10°	500	27-32° 34-40° (BOTH SETS)	(D)
413 CU. IN. 4-BBL.	J 12 Y A 42 (C)	.035"	.014-.019"	10°	500	28-33°	
413 CU. IN. 4-BBL.	J 9 Y A 42 (C)	.035"	.014-.019"	10°	500	27-32° 34-40° (BOTH SETS)	(D)
413 CU. IN. 4-BBL. (2) 300J	J 9 Y A 42 (C)	.035"	.014-.019"	15°	725	27-32° 34-40° (BOTH SETS)	(D)
426 CU. IN. 4-BBL. (2) RAM-MP	J 9 Y (N) J 7 Y (MP)	.035" .025"(MP)	.014-.019"	10°	800	27-32° 34-40° (BOTH SETS)	.015" IN. .024" EX. (D)

Distributor rotation clockwise on 170-, 225-, 313-, 318-cubic-inch engines.
Distributor rotation counterclockwise on 361-, 383-, 413-, 426-cubic-inch engines.

(C) Canadian
(PP) Power Pack
(A) Auto. Transmission
(M) Manual Transmission
(MP) Max. Performance
(D) Dual Ignition Points
(N) Normal Usage
* Headlights on high beam

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